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# User Guide

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## PREFACE

Business 4 Mobile (B4M) is a web application that allows you to consult data from several data sources. The administrator defines the data sources (Database, files, etc.) in folders, then defines access to these folders. Users will be able to access these files to view the data in the results table, charts, and download them in PDF or CSV format.

This document serves as a guide to make it easier to get started with B4M.

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## **1 B4M INITINIALIZATION**

#### 1.1 Presentation

Before using B4M, it is necessary to do a series of configuration steps from the initialization to the creation of the B4M super administrator.

#### 1.2 Welcome Initialization

This interface represents the home screen for starting the basic configuration of B4M.



Image 1: Welcome initialization page.

## 1.3 The configuration of the B4M database

By clicking on *"create the database"* and then on *"next"* you will configure the b4m admin database and create the B4M tables then save the initialization parameters.

b4m.al business mobile	Configu	ration Database				
The following table Datasource_api_par	s will be created: ameter, Logging, atic_value, Query_p		lders_acces, Table_cc	olumn, Table, System	<b>ettings</b> , Settings_queries, Settings aph, Metaquery, Query, Set	-0 1
				Ci	eate the database	Next »

Image 2: The configuration of the b4m page.

## 1.4 Customer setup

This interface allows you to save the customer's name and logo.



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b4m <sub>al</sub> business mobile	Configuration Database	
The B4M admin da	atabase configuration will create the B4M tables and save the initialization settings	
The following table: Datasource_api_par	s will be created: ameter, Logging, User_roles, Role, User_folders_acces, Table_column, Table, System, Settings_queries, Settings_gr itic_value, Query_params, Query_columns, Processing_function, Graphe_option, Graph, Metaquery, Query, Setting	

Image 3: The Customer setup page.

## 1.5 Mail server configuration

This configuration makes it possible to send requests by email, by clicking on *"next"*. And you can also skip this step by clicking on *"ignore "*to continue it in the parameters.

D This configuration allows you to send requests by	email. You can ignore this step and continue to the mail server configuration in the settings
Name of the smtp server	Smtp mail port
smtp.gmail.com	587
Smtp e-mail address	Password smtp mail
Smtp e-mail address	Password smtp mail

Image 4: Mail server configuration page

### 1.6 Add an administrator

This interface allows you to add the information corresponding to the B4M administrator.





Username	Email
First Name	Last Name
Password	Confirm Password

Image 5: Add an administrator page.

### 1.7 Successful initialization

This interface lets you know that the initial configuration of B4M has been carried out successfully.

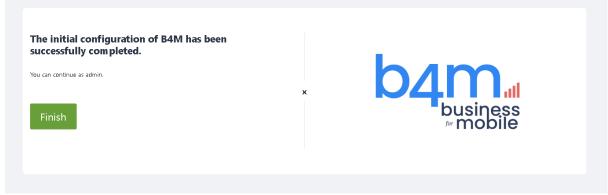


Image 6: Success configuration initial page.





## 2 B4M AUTHENTIFICATION

### 2.1 Login

Access to B4M requires an authentication phase. This is done on a page where the user is asked to provide his username and password.

If the user forgets the password, he/she can click on a link that appears below the password entry field. The link appears only if the mail server configuration has been done. If the mail server is not configured, the user must contact the administrator.

b	4 business	
Username		
Password		
Forgot password?		
	Login	

Image 7: Authentication page.



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	business	
Username		
jean		
Password		
Forgot password?	,	
	Login	

Image 8: Authentication page with completed form.

When the authentication is successful the user is redirected according to the role he has on B4M:

- If he has an administrator role then he is redirected to B4M-ADMIN
- If he has a simple role then he is redirected to B4M-CLIENT

#### 2.2 Password Reset

The password reset is done in two steps. In the first step, the user clicks on the "Forgot Password" link and is redirected to a page where he/she must provide his/her email address. When he fills in the right email address, the system sends him a reset link to his email box and notifies him through a message that appears on the screen.





In the second step, the user goes to his mailbox and clicks on the reset link. When he clicks on the link, a page will open where he will be asked to enter a new password and confirm the password. After the successful reset, the user will be notified of the success and will be offered a button to redirect to the authentication page.

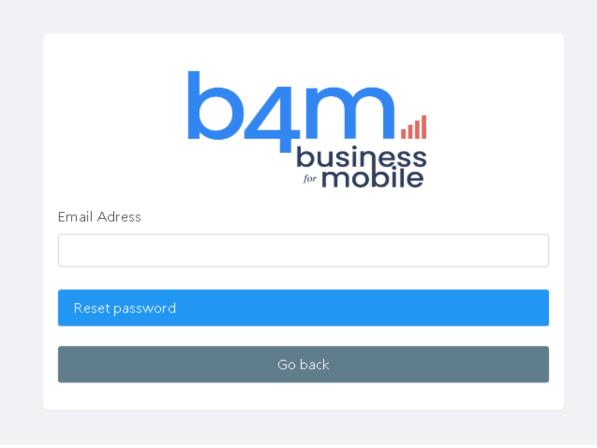


Image 9: Password recover Email form.





business for mobile	
New Password	
Confirm password	
Reset password	
Image 10: Password recover form.	
$\checkmark$ The password reset has been successfully completed	×
business mobile	
The password reset has been successfully completed	
Login	

Image 11: Password recover login.

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## 2.3 Profile

The profile in B4M represents the part where the user accesses functionalities allowing him to modify his information.

PROFILE is composed of two or three functionalities; one that allows you to modify the user's profile, another that allows you to modify the user's password, and last that allows the user to choose the content that should be displayed on his Dashboard.

From the click of the profile icon on the navigation bar of the application, a drop-down menu opens with the following sections:

Information: displays the user's first and last name

- 1- Edit Profile: A clickable section that redirects to the edit user page.
- 2- Password: a clickable section that redirects to the user's change password page.
- **3-** Settings: a clickable section that redirects to the settings page. This option depends on the user's role (Can be seen if the user is not an admin).

Logout: a clickable section that logs out the user

When the "Logout" section is clicked, the user is logged out and redirected to the login page (LOGIN).

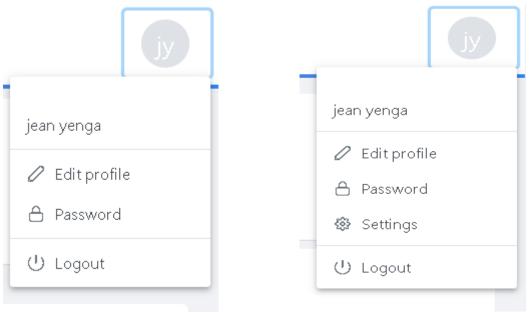


Image 12: profile admin drops down menu

Image 13 : profile client drop down menu



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## 2.4 Update Profile

Updating a profile allows the user to change any information except the username.

Luciness @ Dashboard			iy
	Edit profile	×	
	Username daniel	E-mail yengajean20@gmail.com	
	First Name jean	Last Name yenga	
	Modify		
€ EN ¥		54M	

#### Image 14: Edit profile form.

#### 2.5 Update Password

The password update is done on a page where the user is asked to provide the old password, the new password, and the password confirmation.

Change your password	×
Old Password	
New Password	
Confirm password	
Confirm password Modify	

#### Image 15: Update Password.



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## 3 B4M ADMIN

#### 3.1 Presentation

B4M-ADMIN is the part of B4M where the management of data sources, folders, queries etc. is defined. It is composed of a menu which in turn is made up of 6 sub-menus.

🖯 Datasource	
🗅 Folders	
4 Queries	
ి Users	
Settings	
∃ Logs	

Image 16: Menu of B4M ADMIN.

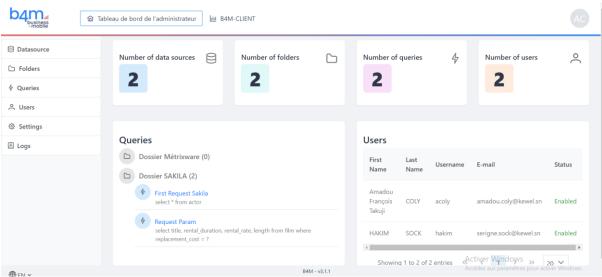


Image 17: Dashboard of B4M ADMIN.



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B4M ADMIN has as home page a dashboard where it lists different statistics of the application such as the number of data sources, the number of folders, the number of requests ...

There is also a zone that contains the requests divided by folders and another zone that lists all the users of the application.

#### 3.2 Datasources

Data sources in B4M represent databases, APIs or files where queries will be executed to retrieve data. B4M-ADMIN-DATASOURCE is composed of features that allow you to add, modify, delete a data source.

The data sources have a home page with a button to add a data source and below this button there is a table containing all the data sources. The data sources in the table are organized in pages and the number of elements per page can be changed according to the user. The data in the table can be sorted or filtered and on each row of the table there are two buttons allowing to modify or delete a data source.

	命 Tableau de bord de l'admini:	trateur 🔟 B4M-CLI	ENT				AC
Datasource	List of dataso	urcos					0
D Folders	List of dataso	urces					Add Datasource
4 Queries							
은 Users	Search keyword						
Settings	Datasource	Datasource	Database				
🗏 Logs	Name 1	Type ↑↓	Name 1	'↓ Host	Port	Username	Action
	Source SAKILA	MYSQL	sakila	localhost	3306	root	
	Source Métrixware	MYSQL	mxw-biz	localhost	3306	root	
			Showing 1 to 2 of	2 entries < <	1 > ≫ 20 ¥		

Image 18: Data sources home page.

#### 3.2.1 Add datasource

The add data source page is composed of a form that allows you to fill in the name of the data source and the type of data source. The display of the additional input fields will depend on the type of the data source chosen. If the type is other than an API then the input fields database name, host, port, username and password are displayed.

If the type is an API, then an area to enter the API URL is displayed. It is followed by a table with a button to add parameters to this API.

- At the end of the form, there are three buttons aligned that allow respectively to:
- Add a data source and go back to the data sources home page.
- Add a data source and stay on the add form by clearing the form fields to allow the user to add another data source if they wish.

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• Test the data source to see if it is accessible.

When a data source is successfully added, a message is displayed on the screen to notify the user.

business -mobile	inistrator's Dashboard 🛛 🔟 B4M-CLIENT		
😫 Datasource			
D Folders	Add Datasource		×
∲ Queries			
은 Users	Datasource Name	Datasource Type	
③ Settings	Datasource Name	Choose type of datasource	$\sim$
Logs			
	Add Add and continue 🗸 Test connection		
<b>A</b>	B4M		
⊕ en ~			
der FN ↔	Image 19: Add data source	e page.	
ham	Image 19: Add data source	page.	jy
ham	iinistrator's Dashboard 🔐 B4M-CLIENT	page.	jy
b4ma -mobile @ Adn		page.	jy ×
b4ma Printeste ⊕ Adm ⊕ Datasource	iinistrator's Dashboard 🔐 B4M-CLIENT	page.	y ×
C Folders	iinistrator's Dashboard 🔐 B4M-CLIENT	page. Datasource Type	jy ×
Datasource     Folders     ¢ Queries	Add Datasource		jy ×
Adm     A	Add Datasource	Datascurce Type	
Datasource     Folders     ¢ Queries	Inistrator's Dashboard Let B4M-CLIENT Add Datasource Datasource Name Datasource Name	Datascurce Type	
Adm     A	Inistrator's Dashboard Let B4M-CLIENT Add Datasource Datasource Name Datasource Name Database Name	Datascurce Type	
Adm     A	inistrator's Dashboard Let B4M-CLIENT Add Datasource Datascurce Name Database Name Database Name	Datasource Type MYSQL	
Adm     A	inistrator's Dashboard Le B4M-CLIENT Add Datasource Datascurce Name Database Name Loatabase Name Host	Datasource Type MYSQL	
Adm     A	inistrator's Dashboard Le BAM-CLIENT Add Datasource Datasource Name Database Name Database Name Host Host	Datasource Type MYSQL Port Port	
Adm     A	inistrator's Dashboard Le BAM-CLIENT Add Datasource Datasource Name Database Name Database Name Host Host Username	Datasource Type MYSQL Port Port Password	

Image 20: Add no API data source.





by business - mobile	nistrator's Dashboard 🛛 🔟 B4M-CLIENT					ју
Datasource	Add Determine					
🗅 Folders	Add Datasource					×
4 Queries						
ి, Users	Datasource Name			Datasource Type		
Settings	Datasource Name			API		~
🗏 Logs	Url https://serveur.exemple.com :8443/applica					
	API request parameter					Add Parameter
	Parameter name	Parameter type		Parameter value	Editable	
	Add Add and continue	$\checkmark$ Test connection				
⊕ en ∨			64M			

Image 21: Add data source API page.

business mobile	trator's Dashboard 🛛 🔟 B4№	-CLIENT	(y
Datasource	Add Datasource		×
<ul><li>Folders</li><li>Ø Queries</li></ul>	-	Adding a parameter ×	
은 Users	Datasource Name	Parameter name	~
<ul><li>Settings</li><li>Logs</li></ul>	Url	Authorization Parameter type	
	https://serveur.exemple.	HEADER ~	
	Parameter name	Add	+ Add Parameter Editable
	Add Add and	continue V Test connection	
		54M	
⊕ en ∽		Darial	

Image 22: Adding a parameter API page.

#### 3.2.2 Modify data source

The data source edit page loads the information from a data source onto a form. All input fields are editable except the data source type field which is disabled.

At the bottom of the form, there are three aligned buttons that allow respectively to:

- Modify the data source and return to the data source home page.
- Modify the data source and stay on the form to allow the user to further modify the data source if they wish.
- Test the data source to see if it is accessible.



business -mobile	rator's Dashboard 🔟 B4M-CLIENT		ју
🖯 Datasource	Factoria (		
C Folders	Factures		×
∜ Queries			
උ Users	Datasource Name	Datasource Type	
Settings	Factures	MYSQL	~
E Logs	Database Name		
	mxw-biz		
	Host	Port	
	localhost	3306	
	Username	Password	
	root	Password	
	Modify Modify and continue 🗸 Test connection		
⊕ en ∽	B4M		
	Image 23: Modify a data source	MySQL page.	

When a modification is successful, a message is displayed on the screen to notify the user.

Administrator's	s Dashboard 🔟 B4M-CLIENT						jy
Datasource	Weather Report						×
🗅 Folders	weather Report						^
4 Queries							
A Users	Datasource Name				tasource Type		
Settings	Weather Report			A	API		~
E Logs	Url https://api.nytimes.com/svc/books/v3/l						
	API request parameter Parameter name	Parameter type	Parameter value			Editable	+ Add Parameter
	api-key	QUERY	9QOYcbFUmz2Cn5Cc	qaio30d	ddE65A0D/p1		0 ×
	list	QUERY	hardcover-fiction				0 ×
	Modify Modify and con	tinue ✓ Test connection					
EN ¥			B4M				

Image 24: Modify a data source API page.

#### 3.2.3 Delete data source

To delete a data source, the user goes to the data source home page, looks at the source to be deleted and clicks on the delete button which is red in colour. When he clicks on this button then a confirmation window is presented to him to confirm the deletion. If the source is linked to folders, then a message is displayed to warn him on the same confirmation window.

If the deletion is successful, then a message is displayed to notify him.





Confirmation	×
Are you sure that you want to delete	e datasource ?
× no	🗸 yes
Image 25: Pop up deleting a data source that does not contain a	folder.
Confirmation	×
The data source you want to delete contains folders, are you su	re you want to delete it? 🗙 no 🗸 yes
L	

Image 26: Pop up deleting data source that contain s a folder.

#### 3.3 Folders

The folders in B4M represent folders of queries. The folders have a home page with a button to add a folder and under it there is a table that contains all the folders divided by pages. The folders can be sorted or filtered, and, on each line, there are two buttons to modify or delete a folder.





business -mobile	rator's Dashboard 🛛 🔟 B4M-CLIENT				jy
Datasource	List of folders				Add a folder
<ul><li>C Folders</li><li>∳ Queries</li></ul>					
ື Users	Search keyword				
<ul> <li>Settings</li> <li>Logs</li> </ul>	Folder name  ↑↓	Data sources ↑↓	Description	Actions	
E Logs	folder_business	Factures - localhost			
		Showing 1 to 1 of 1 entrie	es «< < 1 > >> 20 *	~	
⊕ EN ∽		B4M			

Image 27: List of folders page.

#### 3.3.1 Add folder

Adding a folder is done in two steps. On the first step, a form is presented to the user where he/she fills in the name of the record, chooses the data source with which the record should be linked and makes a description of the record (the description is optional). After entering the data, the user must click on the next button. If the input is correct, the user goes to the second step. On the second step, the user selects the users who should have access to the folder. He unfolds a drop-down list and ticks those who should have access to the folder, and he must click on the finish button to complete the creation of the folder.

business -mobile	inistrator's Dashboard 🔛 B4M-CLIENT		
Datasource	Add a folder		×
C Folders			
∮ Queries			
그 Users	1	(2)	
Settings	Folder Info	Folder Assign Select the data source	
🗏 Logs	Folder name	Select the data source	~
	Description		
	Normal 🔹 Sans Serif 🔹 B I U 🔺 🎆 🗏 🚍 🕁 Ik		
			Next >>
⊕ en ~	54M		
	Image 28: Add a folder 1	st sten	

Image 28: Add a folder 1st step.





	@ Administrator's Dashboard   旭 B4M-CLIENT	AC
Datasource		
C Folders	Add a folder	×
4 Queries		
A Users	1 2 Folder Info Folder Assign	
Settings	Folder Info Folder Assign Select the users who can access this folder in b4m-client.	
🗏 Logs	acoly	~
		Finish

#### Image 29: Add a folder 2nd step.

#### 3.3.2 Modify folder

The page for editing a folder loads the information for a folder where the information is divided into two tabs. On the first tab there is a form that contains the name, data source and description of the folder and on the second tab there is a list of users who should have access to the folder. Below the tabs, there are two buttons that allow you to save the changes and go to the homepage of the folders or save the changes and stay on the folder in question.

business -mobile	trator's Dashboard 🔐 B4IM-CLIENT			
<ul><li>Datasource</li><li>Dolders</li></ul>	folder_business			×
∲ Queries & Users	2 Infos on folder 유, Assign to a user			
Settings	Folder name		Select the data source	
E Logs	folders_business		Factures - localhost	~
	Description Normal  © Sans Serf © B I U A  E E E 40 Z Modify Modify and continue			
€EN ¥		54M		

Image 30: Modify folders page.





business mobile @ Administrator	s Dashboard 🔄 8414-CLIENT	jy
Datasource		
🗅 Folders	folder_business	×
∲ Queries	🗁 Infos on folder 🛛 😤 Assign to a user	
💍 Users	Select the users who can access this folder in b4m-client.	
Settings	jean	~
🗏 Logs		
	Modify Modify and continue	
€EN ¥	ММ	

Image 31: Assign to a user page.

#### 3.3.3 Delete folder

To delete a folder, the user goes to the folders home page, targets the row of the folder to be deleted and clicks on the delete button which is red in colour. After clicking the button, a confirmation window appears to confirm the deletion. If the folder is linked to requests, a warning message is displayed on the same confirmation window. After confirmation, a notification is presented to say whether the deletion was done successfully or not.

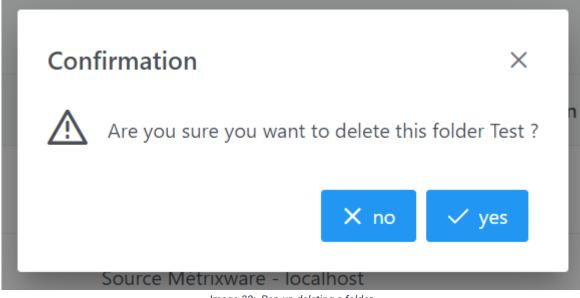


Image 32: Pop up deleting a folder.





Confirmation	×
The folder you want to delete contains queries, are you sure you w	want to delete it? Dossier SAKILA ?
er	🗙 no 🗸 yes
er Métrixware – localhost	

#### Image 33: Pop up deleting a folder containing queries.

#### 3.4 Queries

Queries are the most important part of B4M. Queries have a home page with a button to add a query and under this button there is a table containing all the queries. The queries in the table can be sorted or filtered and are organized in pages. On each row of the table there are three buttons to edit, delete or copy a query.

b4ma business -mobile	r's Dashboard 🔟 B4M-CLIENT				jy
Datasource	List of queries				
🗅 Folders	List of queries				E Add a query
♦ Queries					
옷 Users	Search keyword				
Settings	Name †↓	Description	Folder ↑↓	Actions	
E Logs		Good query			
	Query_business		folder_business		
		Showing 1 to 1	of 1 entries $<<$ 1 $>$ $>$ 20 $\checkmark$		
€EN ¥			B4M		
		Image 34: Lists of	queries Page.		

#### 3.4.1 Add query

The creation of a request is done in four steps.

#### 3.4.1.1 Information

On the first step, the user fills in a form with the information of the query such as the name of the query, the folder of the query, the description of the query which is not mandatory. If the folder chosen by the user is a linked folder with an API data source, then an additional field is displayed on the form where he chooses the attribute that contains the API result.





If the folder is not linked to a non-API data source, then the user fills in a text field with the SQL query that should be executed. Below the form there are two buttons, one of which allows you to test if the query works and the other to go to the next step.

	命 Administrator's Dashboard	년 B4M-CLIENT					y
Datasource		Add a more					
D Folders		Add a query					×
∲ Queries							
A. Users		1	2		3	4	
Settings		Information	Paramet	e	Colonne	Graphe	
🗂 Logs		Name			Choose a folder		
		Name			Choose a folder		~
		SQL request					
		select * from peoples;					
							11
		Description					
		Normal © Sans Serif © B I 🖳 🔺 🎉	$\equiv \equiv \equiv \phi  L$				
		✓ Test the request					Next »
⊕en ∽				E4M			
			Image 35: Add SQ	L Query Firs	t Step.		
b4ma	畲 Administrator's Dashboard	Lat B4M-CLIENT					
Datasource		Add a query					
D Folders		Add a query					×
∲ Queries							
은, Users		Information	2		Colonne	4 	
Settings		Information	Paramet	e	Colonne	Graphe	
🗄 Logs		Name			Choose a folder		
		Name			Folder_API		~
		Description					
		Normal © Sans Serif © B I U A 3					
		Select the attribute that contains the result of the api.					
		status		~			
		✓ Test the request					Next ≫

Image 36: Add Query API First Step.

#### 3.4.1.2 Parameter

The second step is the part where the parameters detected in the SQL query that the user has entered are detailed. In this part, the parameters are contained in a table and each parameter can be edited using the button in the Action column of the table. When this button is clicked, a dialog box containing a form opens and asks the user to fill in the details of the parameter.





After finishing filling in the details, the user must click on the submit button to return to the settings table. Below the table there are two buttons, one of which allows you to finish the creation of the request and another one which allows you to go to the third step.

b4mal business mobile	奋 Admi	inistrator's Dashboard 🛛 🔟 B4M-CLIENT			AC		
Datasource					X		
C Folders		Add a query	Add a query				
4 Queries							
은 Users		1	2	3	4		
Settings		Information	Parametre	Colonne	Graphe		
≣ Logs		Parameter name	Parameter type	Label	Action		
		PARAM 1			N .		
		✓ Finish			Next »		
				Act	iver Windows		

#### Image 37: Add Query Second Step.

#### 3.4.1.3 Columns

The third step is related to the configuration of the columns of the query result. The columns are presented in a table where the user will have the possibility to make modifications such as ordering the columns, renaming the columns, sorting, filtering, or hiding columns. He can also add one or two function methods to a column thanks to a window that appears when he clicks on the button located in the Function column of the table. Below the table there are two buttons, one of which allows you to finish the creation of the query and display the query in edit mode, and the other to go to the last step.

business -mobile	or's Dashboard 🔟 B4M-CLIENT							
Datasource	Add a query							×
🗅 Folders	Add a query							^
4 Queries								
A Users	1 Information		2 Parametre			3 Colonne		Graphe
Settings	mornatori		Parametre			Colonne		Graphe
E Logs	Column Name	Column Label		Sort	Filter	Hide	DrillDown	Function
	≡ actor_id	actor_id					Select a query	•
	≡ first_name	first_name					Select a query	+
	≡ last_name	last_name					Select a query	•
	≡ last_update	last_update					Select a query	+
	✓ Finish							Next »
⊕ EN ~			B4M					

Image 38: Add Query Third Step.



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actor_	ıd ID				
firs	Add the methods to the column				×
	Item		Agregat		
as	Add the methods to the column	~	Add the methods t	o the column	~
as	Add				

Image 39: Add Query Third Step - Add methods for a column.

#### 3.4.1.4 Graph

The last step consists in allowing the user to add graphs to the query. To do this, he clicks on the button add a graph to display the form for adding a graph on a dialog box. He fills in the necessary information for the graph and clicks on the validate button to add the graph on a table. He can add other graphs if he wants and if he finishes, he clicks on the finish button to finish the creation.

b4m.il business -mobile	窗 Administrator's Dashboard 🛛 🔟 B4M-CLIENT			AC
Datasource	Adda			
C Folders	Add a query			×
4 Queries				
은 Users	1	2	3	4
Settings	Information	Parametre	Colonne	Graphe
∃ Logs				
		The query (Request MetrixWare) does n	ot have a graph. 🖆 Add Graph	
	Finish			tiver Windows edez aux paramètres pour activer Windows.

Image 40: Add Query Last Step.







b4ma	🐵 Administrator's Dashboard 🛛 🔐 84M-CLIENT		Ø
Datasure     Datasure     Datasure     Datasure     A Queris     A Users     Gasting     Datasure     Logs		400	×
		LUV	

Image 41: Add Query Last Step - Add Graph.

	奋 Adm	inistrator's Dashboard 🔟 B4M-CLIENT				
Datasource					×	
D Folders		Add a query	ld a query			
4 Queries						
은 Users		1	2	3	4	
Settings		Information	Parametre	Colonne	Graphe	
🗏 Logs						
		The query graphs Custom Request			ជាវិ Add Graph	
		Chart name		Action		
		≁ LINE				
		Finish			activer Windows	
		line a rea 40. A did	Quary Loot Stop After a			

Image 42: Add Query Last Step - After adding a graph.

After the creation of the request, the user is redirected to the same request in modification.

#### 3.4.2 Modify query

The edit page of a request loads the information about a request. The page is organized in tabs and there are four of them. As the creation of a request is divided into steps, on the modification of a request each tab plays the role of a step. Below the tabs, there are three buttons that allow you to:

- save the changes and redirect the user to the home page of the requests.
- save the changes and stay on the same page.
- execute the request and preview the result on a window.





	奋 Administrator's Dashboard	M BRACLENT		jy
Datasource Dotosource		Query_business		×
∲ Queries A Users		D Infes on the query		
Settings		Name Query,business	Cheore a folder folder_business	~
The laps		924 request		
		Decorption Nermal 4: Sens Sent 4: B I M A M E E E 4: 4: 5: Over grave Modify Modify and continue Execute		
A EN LA		D4M		

Image 43: Modify a query, Page.

business -mobile @ Administrato	's Dashboard 🔟 B4M-CLIENT					
) Datasource	Query_API		×			
4 Queries	🖻 Infos on the query 💿 Parameters (0) 🗮 Columns 🕍 Graph (0)	🖸 Infos on the query 🐵 Parameters (0) 🗏 Columns 🕍 Graph (0)				
2, Users	Name	Choose a folder				
] Logs	Query_API Description	Folder_API	~			
	Normal $\Rightarrow$ Sans Sent $\Rightarrow$ <b>B</b> $I$ $\bigcup$ <b>A</b> $  $ $  $ $  $ $\equiv = \Rightarrow \Phi T_x$					
	Select the attribute that contains the result of the api.					
	Modify Modify and continue Execute					
₽ EN ✓	BAM					
	Imaga 14: Madify a guary A	DI Daga				

#### Image 44: Modify a query, API Page.

#### 3.4.3 Delete Query

To delete a query, the user goes to the queries home page, targets the row of the query to be deleted and clicks on the delete button which is coloured red. After clicking the button, a confirmation window appears to confirm the deletion. After confirmation, a notification is presented to indicate whether the deletion was successful or not.





business 	s Dashboard 🔟 P4M-CLIENT	Jy
Datasource  Folders  A Queries  A Users  Settings  Logs	List of queries	Actions
€EN ¥	B4M	

Image 45: Delete a query, Page.

#### 3.4.4 Clone Query

Cloning a query means reproducing a non-API query and modifying its content. During the cloning it is not possible to modify the folder of the query.

business -mobile @ Ad	ministrator's Dashboard 🔟 B4M-CLIENT				AC			
Datasource					×			
🗅 Folders	Add a query	Aut a quely						
4 Queries								
은 Users	1	2	3	4				
Settings	Information	Parametre	Colonne	Graphe				
E Logs	Name		Choose a folder					
	Custom Request Copy		Dossier SAKILA		~			
	SQL request							
	select * from actor							



#### 3.5 Users

Users represent the people who need access to B4M. Users have a home page with an add user button, below this button there is a table containing all users. Users can be sorted, filtered and are organized by page. On each row of the table, there is a button that allows you to activate or deactivate a user, another button that allows you to modify the information of a user and a last button that allows you to delete a user.





b4mal business *mobile		🔟 B4M-CLIENT				jy
Datasource	List of users					
D Folders	List of users					Add a user
4 Queries						
은 Users	Search keyword					
Settings	First Name ↑↓	Last Name ↑↓	Username ↑J	E-mail ↑↓	Enable/Disable	Actions
🗏 Logs	1	14		14		
	jean	yenga	jean	jean.yenga@kewel.sn		م <i>ب</i>
	Hakim	serigne	SOCK	SSOCK@gmail.com		<b>%</b>
		Showi	ng 1 to 2 of 2 entries 🛛 🗠	< 1 > »	20 ~	
⊕ EN ~			B4M			

Image 47: List of users Page.

#### 3.5.1 Add user

The page for adding a user consists of a form where the administrator will define the username, email address, first name, last name, password, and password confirmation. Below the form, there are two buttons, one of which allows to save the information and redirect the administrator to the homepage of the users. And another button that allows to save the information and stay on the same page by resetting the form fields.

business mobile	s Dashboard 🕍 B4M-CLIENT		jy
Datasource	Add a war		
D Folders	Add a user		×
& Queries			
A Users	Username	E-mail	
Settings			
🗏 Logs	First Name	Last Name	
	Password	Confirm password	
	Add and continue		
⊕ EN ∽	ВАМ		

Image 48: Add user Page.

#### 3.5.2 Modify user

The edit user page loads information about a user, which is divided into three tabs. On the first tab, a form that contains the user's name, which cannot be changed, email address, first name and last name. On the second tab, the administrator can select the roles that should be 28/38



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assigned to the user via a drop-down list. On the third tab, the administrator has the option to select the folders that should be assigned to the user via a drop-down list. Below the tabs, there are three buttons to save the changes and go to the user's home page, save, and stay on the same page or reset the user's password. Clicking the reset password button displays a form on the screen that allows the administrator to reset the password.

business -mobile @ Administrator	's Dashboard 🔟 B4M-CLIENT		jy.
Datasource			
C Folders	jean		×
& Queries			
은 Users	🐥 User info Role 🗁 Assign folders		
Settings	Username	E-mail	
E Logs	jean	jean.yenga@kewel.sn	
	First Name	Last Name	
	jean	yenga	
	Modify Modify and continue Reset password		
€en ×	Image 49 : Mo	um dify user Page.	
the Reset passwor	d		×
New Password		Confirm password	
y Reset			

Image 50 : Reset password Page.

#### 3.5.3 Delete or disable user

To delete a user, the admin goes to the users' home page, targets the line of the user to be deleted and clicks on the red delete button. After the click, a confirmation window appears to confirm the deletion. After confirmation, a notification is displayed on the screen to indicate whether the deletion was successful or not.









Image 50: Pop-up deleting a user.

To deactivate or activate a user, the admin goes to the users table, targets the line of the user to be deleted and clicks on the button contained in the Enable/Disable column of the table. After the click, the colour of the line becomes grey for a deactivated user and white for an activated user.

b4mal business mobile	命 Administrator's Dashboard	🔟 B4M-CLIENT				AC
Datasource	List of users					
C Folders	List of users					Add a user
4 Queries						
은 Users	Search keyword					
Settings	First Name ↑↓	Last Name ↑J	Username ↑↓	E-mail ↑↓	Enable/Disable	Actions
🗏 Logs		14		1*		
	Amadou Françoi: Takuji	COLY	acoly	amadou.coly@kewel.sn		<b>*</b>
	НАКІМ	SOCK	hakim	serigne.sock@kewel.sn		<mark>≁</mark>
			Showing 1 to 2 of 2 entries	$\ll$ $\langle$ 1 $\rightarrow$ $\gg$	20 ~	

Image 51: Homepage of users after disabling user.

#### 3.6 Settings

The settings in B4M represent the part where the user updates the information of the client that the application, the configuration of the mail server and the configuration of the information to be displayed on the dashboard. The page is divided into three tabs: on the first tab there is the client information that the user can modify. On the second tab, there is the mail server information and on the third tab there is the B4M-CLIENT dashboard information. Below each college, there is a button to save the changes made on each tab.





Lusiness & Administrator	s Dashboard 🔟 B4M-CLIENT			
Datasource	Could and			
🗅 Folders	Settings			
∲ Queries				
A Users	🐥 Customer 🛛 Email server configuration 🛞 General setup			
Settings	Customer name			
E Logs	B4M			
	Customer's logo Main colour Secondary colour	Browse	The clerif's loga must be a JPEG or PNG image Re. The size of the image file must be less than SMR.	
			The primary and secondary colours can be used to customise the client's PDF template	
	Save			
⊕ EN ¥	84M			

Image 52: Settings Page Customer Tab.

business -mobile	tor's Dashboard 🔤 84M-CLIENT		
Datasource	Settings		
🗅 Folders	octango		
4 Queries			
옷 Users	<sup>o</sup> , Customer Mercan Configuration General setup		
Settings	Name of the smtp server	Smtp mail port	
🗏 Logs	smtp.gmail.com	587	
	Smtp e-mail address	Password smtp mail	
	Smtp e-mail address	Password smtp mail	
	Save		
⊕ EN ~	B4M		
-	Imaga 52: Sattinga Paga Email Sarvar	Configuration Tab	

Image 53: Settings Page Email Server Configuration Tab.



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b4ma @ Admini	istrator's Dashboard	M B4M-CLIENT					iy
<ul> <li>Detasource</li> <li>Folders</li> </ul>		Settings					
∲ Queries 凡 Users		A. Customer 🛛 Email server configuration	on 🚳 General setup				
Settings		Tables					
🖹 Logs		Number of elements per page on tables			Number of elements per page on tables	in B4M-CLIENT	
		B4M-CLIENT dashboard Show Query List section					
		Show Query Result Table section			Show Graph section		
		Sel	ect the two queries to be displayed	on the section		Select the two graphs to be displayed on the s	ection
		Search keyword			Search keyword		
		Name	Description	Folder	Chart name	Name	Action
		Query_business	Good query	folder_business	demo	Query_business	۲
		Query_API		Folder_API		$\ll$ $<$ 1 $>$ $>$ 5 $\checkmark$	
		Query_Business		folder_business			
			$\ll$ < 1 $\rightarrow$ $\gg$	5 🗸			
		Save					
● EN 🗸				B4M			

Image 54: Settings Page General Setup Tab.

## 3.7 Logs

Logging is a part that is only visible to super administrators. It allows traceability on the users who connect to B4M, the management of the users and the execution of the requests.

ش Administrator's Dashb	oard 🔄 B4M-CLIEN	п				
🖨 Datasource	Logs					
∲ Queries						
, R, Users	Date start:			Date end:		
Settings		User †↓	Name of action ↑↓	Date of action 1	Description of action	
🗄 Logs	1	jean	CONNEXION	2022-12-07 14:21:45	jean connected to B4M	
	2	jean	CONNEXION	2022-12-08 10:33:12	jean connected to B4M	
	9	jean	EXECUTE	2022-12-08 15:38:56	jean executed request id : null	
	4	jean	EXECUTE	2022-12-08 15:39:15	jean executed request id : 1	
	5	jean	EXECUTE	2022-12-08 15:39:23	jean executed request id : 1	
	6	jean	EXECUTE	2022-12-08 15:40:05	jean executed request id : null	
	7	jean	EXECUTE	2022-12-12 11:51:16	jean executed request id : null	
	в	jean	EXECUTE	2022-12-12 11:55:07	jean executed request id : null	
	9	jean	EXECUTE	2022-12-12 12:00:23	jean executed request id : null	
	10	jean	EXECUTE	2022-12-12 12:55:31	jean executed request id : null	
	11	jean	EXECUTE	2022-12-12 12:56:26	jean executed request id : null	
	12	jean	EXECUTE	2022-12-12 12:56:28	jean executed request id : null	
	13	jean	EXECUTE	2022-12-12 12:56:35	jean executed request id : 2	
	14	jean	EXECUTE	2022-12-12 13:41:58	jean executed request id : null	
⊕en ∽				BaM		

Image 55: Logs Page



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## 4 B4M CLIENT

#### 4.1 Presentation

B4M-CLIENT is the part of B4M where the user has the possibility to execute queries and display the results of these queries on tables. The B4M-CLIENT menu is composed of folders containing queries, the user only sees the folders for which he has been assigned.

<ul> <li>&gt; Dossier Métrixware (0)</li> <li>&gt; API Folder (1)</li> <li>&gt; Dossier SAKILA (3)</li> </ul>	> 🗅	Test (0)
	> 🗅	Dossier Métrixware (0)
> 🗅 Dossier SAKILA (3)	> 🗅	API Folder (1)
	> 🗅	Dossier SAKILA (3)

#### Image 56: Menu of B4M CLIENT.

The dashboard represents the visual display of information allowing to know the number of files, requests and graphs attributed to a user.

The dashboard page is composed of:

the statistics section:

which indicates the number of files.

- The number of requests
- The number of graphs
- The graph section which displays the graphs
- The Query Result Table section
- The query list section





The query listings section displays queries by folder. The query list section allows you to search for a query.

لک ش Administrator's Das	hboard 🔐 B4M-CLIENT						
C folder_business (2)      Query_business      Query_Business      D folder_sakila (1)	Number of folders	D folder_business 🖒 Folder_API 🗅 Folde	r_rakila	6	Number of queries	4 Number of charts	ш
> C Folder_API (1)	Query_business				Queries		
	ID 1 2 3 4 5 6	NAME Julie DUMORTER Agries LAURENT Ersteller BOLLAND Morgane BARBE William BUBSON Fabrice BOBIN	SOCIETE 1 1 2 2 1 1 1		Surch         b         folder_basiness (2)         •		<b>Q</b>
	Number of seconds: 6	Shaveing I to 6 of 6 entries 🦿 c 🧧	) » 6 v		http://ga.rytimes.com/vocbook	shi Qilini Jaon	
₿en ∽			E4M				

Image 57: B4M client dashboard page.

### 4.2 Execute Query

On all B4M-CLIENT screens, you can access the B4M-CLIENT menu which lists the requests organized by folder.

Clicking on a query allows you to run it and see the presentation of the results on the query result screen.

The query results presentation screen is made up of two parts:

- 1- Presentation by table: Table of results tab
- 2- Presentation by graph: Graph tab

Table view displays the query result on a table. The table allows to filter on the columns and to sort the columns.

The query results table displays results per page. The default number of items per page is set in the settings.

The presentation by graph (graph tab) displays the list of graphs of the query and the selected graph.

When a graph is selected, it is displayed.

The query result screen allows you to send the result by email (SEND-EMAIL), to download the query result in CSV format (DOWNLOAD-CSV) and by PDF (DOWNLOAD-PDF).

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🗸 🗅 Folder_sakila (1)			-	
sakila_Business	命 Dashboard > Folder_sakila > SAKILA_BUSINESS	5		iend an email 🔥 CSV 🔥 PDF
> 🗅 folder_business (2)	Table Graphs			
	Search			
	actor_id	first_name	last_name	
	1	PENELOPE	GUINESS	
	54	PENELOPE	PINKETT	
	104	PENELOPE	CRONYN	
	120	PENELOPE	MONROE	
		Showing 1 to 4 of 4 entries < < 1 >	» 4 <b>v</b>	
	Number of records: 4			
EN V		B4M		

Image 58: Execute Query Page.

#### 4.2.1 SEND-MAIL

The user has access to the send nail button on the query result display screen allowing him to send the query results by email.

The button label is "Send email".

Clicking this button displays a form for sending an email with the following fields:

- **1-** Recipients: the people who should receive the document.
- 2- Subject: the subject of the email.
- **3-** Message body: Email body.
- 4- File to attach: the type of file to attach (choice to be made between a PDF file or a CSV file).

The user has a "Send" button to send the email to the intended people.





b400 a Dashboard				fd
✓ ▷ Folder_sakila (1)	(Construint )	Folder_sakila > SAKILA_BUSINESS		🖾 Send an email 🚺 CSV 🚺 PDF
\$ sakila_Business	uti Dashboard /	rolder_saklia 🗶 saklija_business	-	El seno an email
> 🗅 folder_business (2)	Table Graph	Send an email	<	
		Redpients		
	Search	2001@yyy-zz		
	actor_id	Object	ne	
	_	Object	- 88	
	1	Message	:s	
	54	Message	r	
	104	Attachment file	Ы	
	120	D PDF D CSV	DE	
		Send		
	Number of re			
⊕ EN ✓		84M		

Image 59: Send mail form.

#### 4.2.2 DOWNLOAD-CSV

The user has access to a button "CSV" on the query result display screen allowing him to download the query results to a CSV file.

The button label is "CSV" and a cloud icon with an arrow inside the image precedes the text.

When you click on the button then the file is downloaded with the example below of the request "Sakila\_Business".

✓ 🗅 Folder_sakila (1)				_
∲ sakila_Business	fâr Dashboard ≯ Folder_sakila ≯ SAKILA_BUSINESS		Send an email	V 🚯 PDF
> 🗅 folder_business (2)	Table Graphs			
	Search			
	actor_id	first_name	last_name	
	1	PENELOPE	GUINESS	
	54	PENELOPE	PINKETT	
	104	PENELOPE	CRONYN	
	120	PENELOPE	MONROE	
		Showing 1 to 4 of 4 entries $<<$ 1 $>$ $>$ 4 $\checkmark$		
	Number of records: 4			
∎en ✓		B4M		
■EN ♥ ■ sakila_Business.csv ^				Tout affich

#### Image 60: Download csv.

#### 4.2.3 DOWNLOAD-PDF

The user has access to the "PDF" button on the query result display screen allowing him to download the query results to a PDF file.

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The button label is "PDF" and a cloud icon with an arrow inside the image precedes the text.

When you click on the button then the file is downloaded to the machine according to the example below of the request "Sakila\_Business".

<ul> <li>Polder_sakila (1)</li> </ul>	ʿඣ Dashboard ≯ Folder_sakila ≯ SAKILA_BUSINES:	s	🖾 Ser	nd an email 🔥 CSV 🔷 PDF	
sakila_Business		an province ( ) reade "mains ( ) search" provinces			
> 🗅 folder_business (2)	Table Graphs				
	Search				
	actor_id	first_name	last_name		
	1	PENELOPE	GUINESS		
	54	PENELOPE	PINKETT		
	104	PENELOPE	CRONYN		
	120	PENELOPE	MONROE		
		Showing 1 to 4 of 4 entries << < 1	> >> 4 💙		
	Number of records: 4				
∎en ✓		B4M			

Image 61: Download pdf.

## 4.3 Settings

B4M-CLIENT-SETTING represents the part where the user can choose the content that should be displayed on his Dashboard.

By clicking on the profile icon in the navigation bar of the application, a drop-down menu opens with the option Setting.

By clicking on the Parameter option, the user views the parameters screen with the following sections:

- 1- Display or not the graphic section.
- 2- Whether or not to display the queries list section.
- **3-** Whether or not to display the Table section of the query results.
- 4- Select queries to display in the query results table section.
- **5-** Select the graphs to display in the graph section.

A "Save" button is offered to the user to save his settings.





business -mobile @ Da	shboard					vi	
> 🗅 Folder_sakila (1)	Settings						
	General setup     Dashboard     Show Query List section	Dashboard					
	Show Query Result Table section	Show Query Result Table section  Select the two queries to be displayed on the section		Show Graph section			
	Search keyword	Description	Folder 5 V	Search keyword Chart name	Name	Action ,	
	Save						
€EN ¥			B4M				

Image 62: Settings dashboard client.



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