

ETUDIER EN FRANCE
УЧИТЬСЯ ВО ФРАНЦИИ

BGF 2020

Preliminary study

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Introduction

The purpose of this preliminary study is to prepare the development of a new web application (later called in this document BGF 2020) for the management of the French embassy SST (Service des Sciences et Techniques) scholarships.

A first document has been issued by the SST to present its requirements. This report focuses on:

- Porting this initial document to a technical specifications document that can be used afterwards by the production team to develop the application.
- Evaluating the price of the project.

This document will successively review:

- The SST workflow processes.
- The user management
- The data structure
- The data archiving requirements
- The proposed technologies
- The interface
- The testing techniques
- The documentation and training
- The commercial proposal

SST workflow processes

1 Actors

There are 4 actor types that are identified for the workflow process:

- SST Counselor
- SST Mission Manager
- Campus France Europe pole manager
- Student

2 Main concepts and vocabulary

In order to avoid confusion, the main concepts used in this document are defined in this section.

2.1 Scholarship

A special program managed by the French government, through which Russian students can receive special grants to help them carry on their studies or researches in France. There are 4 different scholarship programs, named respectively "master", "ostrogradski", "vernadski" and "metchnikov". Each of them targets different kind of students.

2.2 Scholarship session

A process managed by the SST at the end of which is chosen by the SST a list list of Russian students that will get a special grant associated with a SST specific scholarship program.

2.3 Application

A request made by a Russian student for a specific scholarship grant.

2.4 Scholarship file

The next step after an application has been validated by the SST. It regroups the application information plus specific additions.

2.5 Documents

Pdf or image files that are to be uploaded by the student to support his claim.

2.6 Laureate

A student that is offered a grant by the SST.

2.7 Scholarship extension

The possibility to offer a second grant to a laureate, associated to the scholarship he initially applied for, for him to carry on his studies or research in France after a the initial period.

3 Workflow description

The following description presents the workflow as it is presently processed by the SST employees at the moment. It is the base for BGF 2020 modeling.

- The SST Mission manager inputs a new scholarship session, with starting and ending dates for application.
- Students apply for the scholarship.
- At the end of the application period, the SST Mission Manager checks all applications
 - If the application is complete, the SST Mission Manager pre-validates it.
 - Else, the application status is updated (missing or non-compliant information) and a communication is sent to the student that can then come back to amend his application.
- The SST Mission Manager selects applications from the main list to build a short list of potential candidates and forwards this list to the SST Counselor.
- The SST Counselor can modify this list and then validates it.
- The SST Mission Manager informs the students (Email). There are 3 lists: The laureates, those who are on a waiting list and eventually those whose application was rejected.
- The laureates are required to establish a scholarship file. 4 additional documents are required for the student to supply.
- If a laureate declines the scholarship offer, then the SST Mission Manager chooses a student in the waiting list to replace the former laureate and forward the proposition to the SST Counselor. After validation by the Counselor, the the new laureate is informed and is required to establish his scholarship file.
- Once all scholarship files are complete and validated by the SST Counselor:
 - The SST Mission Manager forwards the information about the laureates to Campus France Europe Pole Manager. There can be several forwarding, due to application cancellation by the students. Each forwarding has to be validated by the SST Counselor.

- The SST Mission Manager inputs each of them in a special software of the MEAE (French Foreign Affairs Ministry). This operation is not planned to be integrated in BGF 2020.
- If a student faces difficulties in France, he contacts the SST Mission Manager who then contacts Campus France to find a solution. This flow of information is optionally to be managed by BGF 2020 (special module).
- There is a possibility for the SST to grant special scholarship prolongations. This part is today managed manually and is optionally to be managed by BGF 2020 (special module).
- Special scholarship prolongation workflow details:
 - The SST Mission Manager informs the students of the scholarship prolongation possibility (Email) and ask them to provide the transcripts and commentaries regarding their studies in France.
 - The Students send the documents.
 - The SST Mission Manager checks the documents.
 - The SST Mission Manager builds a list and proposes it to the SST Counselor.
 - The SST Counselor can modify the list and then validates it.
 - The SST Counselor inputs the information in the MEAE software (this operation is not to be integrated in the BGF application).
 - The students are informed (Email)
- At the end of the scholarship period in France, the student is asked to write and send a report. This is manually managed today and is optionally to be managed by the BGF application (special module).
- End of scholarship report workflow details:
 - A notification is sent to the student at the end of the scholarship in France.
 - The Student sends the documents.
 - The SST Mission Manager is notified of the documents being uploaded.

BGF 2020 detailed workflow elements.

The BGF 2020 detailed workflow elements is to be found in [Appendix A](#).

The purpose of this table is to identify each elementary element of the workflow. It is built on the model: Initiator → Action → Element, that can be translated by: The initiator is making this Action on that Element.

BGF 2020 User management

1 Base user management.

The base user management uses 4 hard coded user profiles that are mapped on the 4 identified actors that were identified in the workflow process:

- Student
- Mission Manager
- Counselor (administrator)
- Campus France pole manager

Each user profile gives rights for specific actions on specific elements. These rights are hard coded and can only be modified by a qualified developer.

The counselor user has administrator rights and has full access to all data and features.

The mapping between rights and user profiles is outside the perimeter of this document, and will be processed during the main development phase.

Each individual user is associated to one user profile.

2 Option : User profile management

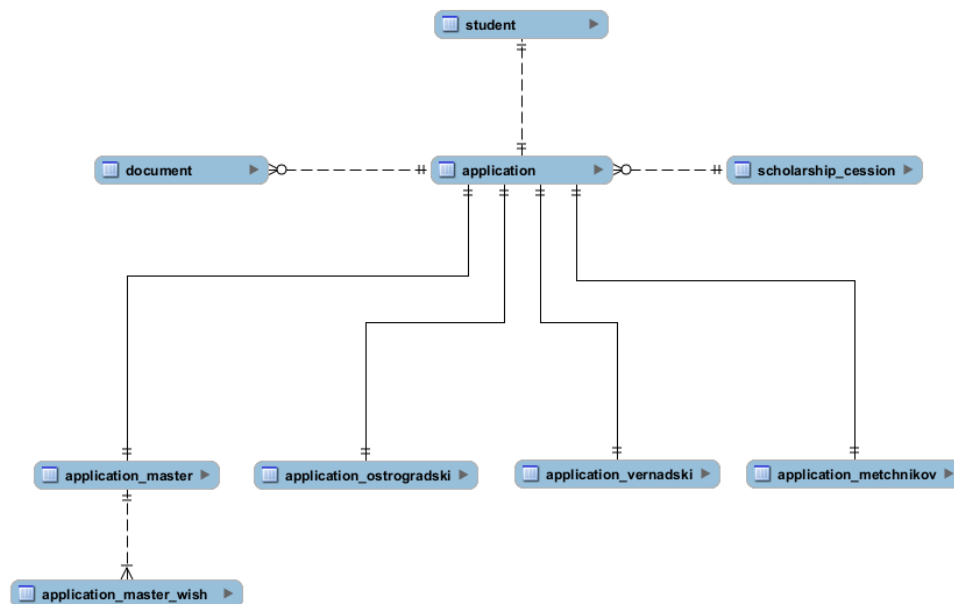
The user profile management option gives to the site administrators the possibility to create and delete personalized profiles and to manage the rights for each of them.

Each personalized profile is associated to one of the 4 base user profiles, as those are used in the data processing logic.

BGF 2020 Data structure

1 Overall data structure

The following diagram displays a simplified view of BGF 2020 data structure.



NB: This data structure can be modified during the main application development phase.

2 Field list

The main data field list are displayed in [Appendix B1](#) and [Appendix B2](#)

Old BGF data archiving

There are 2 ways to consider the data archiving from the old BGF application.

1 Simple file archiving

This option consists of archiving all BGF data in a text file and all documents in a zip archive for

all students.

This data is then given to the SST. To access it, the SST will have to find the text file and / or the zip archive related to the student for which the data is required. The student name will be included in the file names in order to find it easily.

This solution is adapted if the SST plans to access the archived data only very exceptionally.

No additional hosting is required.

2 Leaving the old BGF application online

This option is the most simple one and makes possible to keep all functions of the old BGF application.

Additional hosting: The whole old BGF application hosting is required.

All in all, the first option demands an immediate investment, but require no hosting afterwards. The third one doesn't demand any immediate investment, but requires a double hosting budget each year.

Technical architecture and technologies

The following section displays BGF 2020 technical requirements:

1 Database

Microsoft SQL Server 2008 R2 or higher

2 Back end

Microsoft .net framework 3.5

3 Front end

jQuery

HTML 5

4 Hosting requirements

Intel Xeon CPU E3-1245 3.4 Ghz

Ram 32 Gb

1 SSD 120Gb, 1 HD 512Gb


Microsoft Windows Server 2019

Interface

The interface structure is presented in [Appendix C1](#) for the frontend part, and in [Appendix C2](#) for the backend.

1 Prototype

The full prototype is accessible through this link: [BGF 2020 prototype](#)

To navigate through the different prototype pages, click on the elements that show the  icon when hovered on.

The first page displays 2 blue squares. "Student" leads to the frontend pages, starting with the

home page. "Manager" leads to the backend pages, starting with the scholarship list.

NB: The prototype is not a design nor a fully integrated interface. Its main purpose is to describe its logic and the positioning of the different blocks and elements for each page template. The texts are therefore there only for example and doesn't represent the real contents.

In the application forms, all fields are not displayed to give a more synthetic view and better understanding of the prototyped page.

The following sections add comments for each interface page in order to clarify inter page navigation and internal logic. Each prototyped page can be accessed by clicking on the sub-section heading.

1.1 Frontend

1.1.1 Language

The "home page" and "scholarship detail pages" will be published in French and English. All other pages will be displayed only in French (to be confirmed for the "My account" section).

1.1.2 [Home page](#)

- Click on the "войти" → sign up buttons to go to the My Account main page.
- Click on the Metchnikov or Master "подать заявку" button to go to the scholarship detail page template.

1.1.3 [Scholarship detail page template](#)

- The left block gives a quick access to the detail page for any scholarship.
- Click on the "подать заявку" to move on to the application form prototype.

NB: There are 2 application form prototype templates: One for Ostrogradski, vernadski and Metchnikov scholarship applications. It is accessed by home page → Metchnikov "подать заявку" → "подать заявку". The second one for the Master scholarship application. It is accessed by home page → Master "подать заявку" → "подать заявку".

1.1.4 [Application create / edit form Ostrogradski / Vernadski / Metchnikov](#)

- There are 3 sub pages: Identity, profile and project.
- The list of form fields will be adapted for each scholarship.
- The prototype page presents only a selection of elements. All elements present in the field list will of course be integrated in the interface.
- To move from identity to profile, click on the "next" button
- Second page: For the 3 "statut" radio buttons, the next 4 fields will be displayed only if the "professional" button is chosen.
- Second page: Same logic for the "Former other French embassy scholarship" radio buttons (one additional field displayed).
- Second page: Click on the "Next" button to move from the profile page to the project page
- All mandatory fields as well as uploaded documents are checked. If the inserted data is missing or non compliant, a window will appear on clicking, asking the student to modify his input.

- Click on "Next" to move from the project page to the My Account main page.

1.1.5 [My Account main page](#) (Ostrogradski / Vernadski / Metchnikov)

- Displays a single line with the application status + a few other significant information.
- A click on the line will give access to the application project edit form (3rd page).
- A special icon on the line will show up if fields and / or documents are not compliant.
- The left block will give quick access to:
 - Identity edit page.
 - Profile edit page (last one if the student has several due to past scholarships).
 - Project edit page. The "!" icon will be shown if information of documents are not all compliant.
 - Change password page (not prototyped)
 - Scholarship file page (not prototyped). This page will list the uploaded documents, display the ones that are not compliant and give the possibility to upload new ones. The "!" icon will be shown if information of documents are not all compliant.
 - Scholarship report page. Displays the scholarship specific report files.

1.1.6 [Application create / edit form Master](#)

- Accessed from home page → Master "подать заявку" → "подать заявку"
- Same identity and profile template pages as for the 3 other scholarships.
- The project page is special. After having filled the different page fields, the student will click on the "next button". He will then be redirected to the wish list page where his first project wish that he just saved will appear. He will be able to add up to 6 other wishes by clicking on the "add project wish" button.
- Only the first line will be considered at by the SST Mission Manager at any moment. The student can change the order of the list by a drag and drop of any line.

1.2 Backend

1.2.1 Language

The whole backend area will be displayed in French only.

1.2.2 [Scholarship list](#)

- Click on the "new scholarship button" to go to the create / edit scholarship, or the first line of the table to access the application list

1.2.3 [Application list](#)

- The left block gives a quick access to filtered list of applications according to the scholarship and, within a scholarship, according to the application status.

- The main list gives the possibility to process bulk status changes by selecting the applications and choosing a status in the top right dropdown control. The user can also change each application status individually. The available statuses in the dropdown list is set according to the user profile. This organization, together with the left block navigation filters makes it easy to sort and then validate application lists by the counselor.
- Click on the first line to get to the edit application form for ostrogradski, vernadski or Metchnikov scholarships, or the last line to go to the edit application forms for Master scholarships.

1.2.4 [Application edit form for ostrogradski, vernadski or Metchnikov scholarships](#)

- Just a few identity fields are displayed. The left block gives quick access to profile and project pages.
- The right block gives a synthetic view of all documents. The icons make possible to quickly see the compliance status of each document and gives possibility to change it quickly.
- A click on a document (third document on the prototype page) will display the document. The user can then navigate between documents and modify their compliance status.
- A "create pdf" button can be added if needed. This has not been included in the quotation.

1.2.5 [Application edit form for Master scholarships](#)

- Access to the page prototype through scholarship list → last line of the table → first line of the application table
- The "status of the application" button refers to the student's active project, which is the first of the table list.
- The user can modify the wish order by a drag and drop to activate an other wish as project.
- A click on the edit button gives access to the wish edit form.

2 Design requirements

The design layout of the present application is to be modernized according to the present requirements:

2.1 Logo:

- Must include the following texts:
 - "Programme de bourses de l'ambassade de France à Moscou"
 - "Стипендиальные программы посольства Франции в Москве"
- Minimum width: 150 px
- In the top left corner
- The student has to identify immediately the site owner (the French government)

2.2 Design layout elements

- The base colors will be blue, white, red and grey

- Font: Liberation sans

3 Adaptive design

The public part of the site will be created with the adaptive design technology, that makes the site design adapt automatically to visitor's screen size.

Testing

1 Unit testing

BGF 2020 can optionally be developed with unit tests. These specific tests are small programs that test separately each main elementary component of the application.

Their purpose is to facilitate the maintenance and evolution of the application by avoiding regression bugs. These are bugs that appear in areas that were working properly before and that are caused by interactions with recently modified code in other area of the application.

Unit testing is considered as good programming practice, is profitable on the long run and is strongly recommended.

2 User tests

User tests are tests that are processed from the user point of view through the user interface.

A list of tests will be planned and validated by the SST. All listed tests will need to be passed in order for the application to be considered as operational.

Tests will be processed for PC, tablet and phone most used screen resolutions.

Documentation and training.

The application code is to be fully commented in English.

A user manual will be written in French for the SST users.

A training session of 2 hours will be planned for the SST users.

Commercial proposal

1 Project organization

The project will be divided in 4 parts:

- The setup: Programming tool and server setups, database structure creation.
- The frontend part development (for students)
- The backend part development (for SST employees)
- Tests, training and production

Inside each part, the work will be divided in 2 week "sprints". At the beginning of each sprint, the project managers will meet to review the former sprint and create the task list for the next one.

This organization is at the core of what is called the "agile" development method, as the task list is not wholly planned at the beginning of the project, but instead created and adapted with each sprint all along the project.

Atalan will produce a report after each sprint meeting to confirm the decisions that were taken.

2 Development time requirements

The strict estimated time for the whole project development is 128.9 working days. We must add 10 days of holidays for the main developer, so the final estimate is 138.9, rounded up to **140 working days**.

This estimate includes security.

3 Price

3.1 Development

The following table displays the development and unit testing price.

BGF 2020

Modules	Development price	Unit testing price	Total price	Duration
Core				
BGF 2020 – core	1,002,240 ₺	153,216 ₺	1,155,456 ₺	87.4
Modules				
Profile management	53,760 ₺	8,064 ₺	61,824 ₺	4.6
Student "my account"	107,520 ₺	16,128 ₺	123,648 ₺	9.2
Message management	26,880 ₺	4,032 ₺	30,912 ₺	2.3
Scholarship extention management	26,880 ₺	4,032 ₺	30,912 ₺	2.3
Total	1,217,280 ₺	185,472 ₺	1,402,752 ₺	105.8

The duration is expressed in working days.

The modules are optional.

After this main step, we need to process the data migration (in the case the option 1 is chosen), the user tests, the publication, the documentation, the training and project management.

The following table displays the complete price of the project. This total price includes all optional modules and can be thus adjusted by removing some of them.

BGF 2020

Modules	Price	Duration
Development		
BGF 2020 – core	1,155,456 ₺	87.4
Modules	247,296 ₺	18.4
Data migration		
Data migration	26,880 ₺	1.7
Integration		
User tests	203,136 ₺	17.6
Publication	26,880 ₺	1.7
Knowledge		
Documentation	38,400 ₺	3.3
Training	4,000 ₺	0.4
Other		
Project management	341,658 ₺	
Total	2,016,826 ₺	128.9

3.2 Hosting

3.2.1 Context.

The present "old" BGF application is hosted on a shared server in France. The present Russian legislation requires all personal data of Russian citizens to be physically hosted on the Russian Federation territory. As a consequence, BGF 2020 needs to be hosted in Russia.

The CUF's site and data, also presently hosted on the same shared server in France will also have to be moved in Russia.

A specific server is then required, equipped with the proper software infrastructure.

It seems logical to take advantage of BGF 2020 new project to move CUF's site at the same time.

3.2.2 Quotation

The price is composed of an installation fix price, Microsoft licenses fix price and a recurring payment:

- Installation: 140 000 rubles. Once.
- Licenses Microsoft Windows and Microsoft SQL server: 1 900 dollars, to be converted in rubles at the time of the agreement signature. Once.
- Recurring payment: 12 500 rubles per month.

The recurring payment amount assumes that the server is shared with the CUF and doesn't include a potential hosting of the old BGF application if the first option of data archiving was not chosen (see section [Old BGF data archiving](#) page 7).

The installation and licenses can also be shared by CUF, but this has not be taken into account for the present quote.

3.3 Support

Support will be quoted separately.

4 Invoicing

4.1 BGF 2020 application development

Atalan will issue the invoices according to the following plan:

Id	Invoice	Percentage
1	Initial, at agreement signature date	20 %
2	At backend development starting date	30 %
3	At frontend development starting date	30 %
4	At delivery act signature's date	20 %

4.2 Hosting

4.2.1 Installation and licenses

The installation and licenses invoice is issued at the date of signature of the hosting agreement.

4.2.2 Recurring payments

Recurring payments are invoiced annually. The invoice is issued at the beginning of the agreement period.

The first agreement period starts on the first day of the server availability and ends on 31 December of the same year.

5 Payment terms

All invoices are to be paid 10 days after having been received by the Client.

6 Validity

This quotation is valid 3 months.

Conclusion

BGF 2020 is an ambitious project that is designed to stay operational for a long time.

Its characteristics (modularity, unit testing, adaptive design ...) will also make it flexible and maintainable, in order for example to adapt and deploy it in other French embassies.

The development time is significant and the project has therefore to be launched quickly to be ready at the end of the first quarter of 2021.

Appendix A

BGF 2020 detailed workflow elements

trigger	initiators	actions	targets	conditions	comments
A new back end user is to be created	MM	create	user		
A back end user was created	BGF	notify	MM, Counselor		
A back end user is to be modified	MM	modify	user		
A back end user is to be archived	MM	archive	user	Validation by MM	
A user was archived	BGF	notify	Counselor		To be confirmed
A user wants to change his password	BGF	send	link		
A user password was successfully changed	BGF	notify	user		success page
A back end user wants to change his personal information	user	modify	user	Validation by MM	
A new profile is to be created	Counselor	create	profile		With association of rights (actions on objects) to the profile
A profile is to be modified	Counselor	modify	profile		Change of rights
A profile is to be removed	Counselor	delete	profile	Profile not applied to any user	
A new scholarship session is to be created	MM	create	scholarship		
A scholarship session was created	BGF	notify	Counselor, MM		
A scholarship session is to be modified	MM	modify	scholarship		
A scholarship session is to be archived	MM	archive	scholarship	all applications terminated	
A scholarship session was archived	BGF	notify	MM		
A scholarship application period is expired	BGF	notify	MM		
A student wants to apply for a scholarship	student	fill	application form		Creation of a new student account if doesn't exists. Email address check through link.
A student applied for a scholarship	BGF	notify	MM		
A student wants to check the status of his application	student	read	application		Focus on application status. If status = not compliant, information about what is not compliant
A student wants to modify his personal information	student	modify	user		
A user student was self modified	BGF	notify	MM		
A student wants to modify his application	student	modify	application		information fields
A application was modified by the student	BGF	notify	MM		
A student upload a new document	student	modify	document		
A new document was uploaded by a student	BGF	notify	MM		
An application is to be reviewed	MM	read	application, uploaded documents	Status >= confirmed	uploaded documents are read through a meta pdf regrouping all docs
An application list is to be exported to an Excel file	MM, campus france	extract	applications (bulk)	Status >= confirmed	filtered list
A document is compliant	MM	modify	document		Status = compliant
An application needs to be modified (except docs)	MM	modify	application	Application not validated by counselor yet	
A document is evaluated as not compliant	MM	modify	document		Status document = not compliant
A document was evaluated as not compliant	BGF	modify	application	at least one document not compliant	Status application = not compliant
A document was evaluated as not compliant	BGF	notify	student		
An application is complete	MM	modify	application	all documents compliant	Status = compliant
An application is complete and status <> validated	BGF	notify	MM, Counselor	All documents compliant, status <> validated for more than 24 hours	Notifies every?
An application is estimated as potential laureate	MM	modify	application	Application is compliant & not validated by counselor	Status = potential laureate
An application is estimated for waiting list	MM	modify	application	Application is compliant & not validated by counselor	Status = potential waiting list
An application is estimated as rejected	MM	modify	application	Application is compliant & not validated by counselor	Status = potential rejected
Applications are to be validated by counselor	MM	notify	Counselor		
An application is validated as laureate	Counselor	modify	application	Application is potential laureate	Usually after notification from MM. Status = laureate.
An application was validated as laureate	BGF	notify	student	Status= laureate	
An application is validated for waiting list	Counselor	modify	application	Status= potential waiting list	Usually after notification from MM. Status = waiting list
An application was validated as waiting list	BGF	notify	student	status=waiting list	
An application is rejected	Counselor	modify	application	Status = potential rejected	Usually after notification from MM. Status = rejected.
An application was rejected	BGF	notify	student	Status = rejected	
Application bulk validation	Counselor	modify	applications (bulk)	Status = potential laureate or potential waiting list or potential rejected	
A student accepts the scholarship	student, MM	modify	application	Status = laureate	Status = accepted
A student accepted the scholarship	BGF	notify	student, MM		
A student declines the scholarship	student, MM	modify	application	Status = laureate	status = declined
A student declined the scholarship	BGF	notify	MM		
A laureate application is to be modified	Counselor	modify	application	Status = laureate	No automatic notification to the student
A declined laureate application is to be replaced	MM	modify	application	Status = waiting list	Status = potential laureate
An accepted application is to be reviewed	MM	read	documents	Application status = accepted. All required documents were uploaded by the student	Additional uploaded documents are read through a meta pdf
An accepted application is ready	MM	modify	application	Status = laureate	Status = ready
An accepted application was set as ready	BGF or MM?	notify	Counselor	Status = ready	Individually or in bulk
Ready applications are to be confirmed	Counselor	modify	application	Status = ready	Status = confirmed
A ready application was confirmed	BGF	notify	Campus, student	Status = confirmed	
Application bulk confirmation	Counselor	modify	Application (bulk)	Status = ready	Status = confirmed.
A student wants to contact the SST	student	create	message, MM		
A student created a message	BGF	notify	MM		
SST or Campus France wants to create or reply to a message	MM, campus france	create	message, user		
SST or Campus France created a message	BGF	notify	user		
A message is to be reviewed	user	read	message		
A confirmed application can be extended	MM	modify	application	Status = confirmed	Status = potential extension
A confirmed application was declared Potentially extended	BGF	notify	student	Status = potential extension	
A potentially extended application is ready to be reviewed	MM	read	documents	Status = potential extension. All required docs are uploaded by the student	Additional uploaded documents are read through a meta pdf
A potentially extended application is ready	MM	modify	application	Status = potential extension. All required docs are compliant	Status = extension ready
A potentially extended application was set as ready	MM	notify	Counselor	Status = extension ready	automatic notifications or to be confirmed? Depends on confirmations only in bulk or not
Potentially extended application are to be set as extended	Counselor	modify	application	Status = extension ready	Status = extended
Application bulk prolonging	Counselor	modify	Application (bulk)	Status = extension ready	Status = confirmed
An application was set as extended	BGF	notify	student		
A student scholarship period is expired	BGF	notify	student		
A student scholarship is ready to be terminated	MM	modify	application	All required documents are compliant	status = terminated

Background color legend

- Base version
- Optional module "user right management"
- Optional module "my account"
- Optional module "messages"
- Optional module "extension management"

List of abbreviations

- MM
- BGF
- SST Mission manager
- BGF 2020

Note: Counselor is a global initiator and can initiate any described action. When he is noted as initiator in the table, he is the only possible initiator

Appendix B1

Main data fields

metchnikov	vernadski	ostrogradski	master	description	type	mandatory	default	validation rules	Db field comment	Interface comment
x	x	x	x	IDENTITY						
x	x	x	x	name	text	x	EMPTY	Latin letters only		
x	x	x	x	middle name	text	x	EMPTY	Latin letters only		
x	x	x	x	first name	text	x	EMPTY	Latin letters only		
x	x	x	x	sex	list	x	EMPTY	Limited to list	male/female	
x	x	x	x	birthdate	date	x	EMPTY	min, max?		
x	x	x	x	birthplace	text	x	EMPTY	Latin letters only		
x	x	x	x	nationality	list	x	RUSSIAN	Limited to list	only Russian choice possible	
x	x	x	x	address street 1	text	x	EMPTY	Latin letters only		
x	x	x	x	address street 2	text		EMPTY	Latin letters only		
x	x	x	x	zip code	list	x	EMPTY	Limited to list	linked to the country	
x	x	x	x	city	list	x	MOSCOW	Limited to list	linked to the zip code	
x	x	x	x	country	list	x	RUSSIA	Limited to list	list to be given by BGF	
x	x	x	x	telephone	text	x	EMPTY	Latin letters only		Phone mask
x	x	x	x	email	text	x	EMPTY	Latin letters only		Email mask + Email address validation by link
x	x	x	x	PROFILE						
x	x	x	x	resume	document	x	EMPTY			
x	x	x	x	last degree date of graduation	date		EMPTY	min, max?		
x	x	x	x	last degree level	list		EMPTY	Limited to list	list to be given by BGF	
x	x	x	x	last degree field	list		EMPTY	Limited to list	list to be given by BGF	
x	x	x	x	last degree speciality	text		EMPTY	Latin letters only		
x	x	x	x	last degree institution	text		EMPTY	Latin letters only		
x	x	x	x	last degree red	boolean		EMPTY			
x	x	x	x	last degree certified copy	document		EMPTY	Pdf. Min,max weight?		
x	x	x	x	last degree transcript	document		EMPTY	Pdf. Min,max weight?		
x		x		publication list	document		EMPTY	Pdf. Min,max weight?		
x	x	x		institution name	list		EMPTY	Limited to list	list to be given by BGF	
x	x	x		institution city	list		EMPTY	Limited to list	list to be given by BGF	
	x	x		doctorate thesis director name	text		EMPTY	Latin letters only		
	x	x		doctorate thesis director email	text		EMPTY	Latin letters only		
	x	x		doctorate scholarship	boolean		EMPTY			
			x	present course level	list	X	EMPTY	Limited to list		
			x	present course year	list	X	EMPTY	Limited to list		
			x	present course field	list	X	EMPTY	Limited to list	list to be given by BGF	
			x	present course speciality	text	X	EMPTY	Latin letters only		
			x	present course institution	list	X	EMPTY	Limited to list	list to be given by BGF	
			x	present course scholarship holder	boolean	X	EMPTY			
			x	present course last transcript	document	X	EMPTY	Pdf. Min,max weight?		
	x	x	x	student	boolean		TRUE			
	x	x	x	professional	boolean		FALSE			
	x	x	x	profession job name	text		EMPTY	Latin letters only	Only if professional radio button selected.	
	x	x	x	profession date of hiring	date		EMPTY	min, max?	Only if professional radio button selected.	
	x	x	x	profession employer name	text		EMPTY	Latin letters only	Only if professional radio button selected.	
	x	x	x	profession employer address	text		EMPTY	Latin letters only	Only if professional radio button selected.	
	x	x	x	job seeker	boolean		FALSE			
	x	x	x	student card or job permit	document	X	EMPTY	Pdf. Min,max weight?		
	x	x	x	former scholarship	text		EMPTY	Latin letters only		
	x	x	x	french language level	list	X	EMPTY	Limited to list	A1,A2,B1,B2,C1,C2	
	x	x	x	french language certificate	document		EMPTY	Pdf. Min,max weight?		
	x	x	x	other foreign language	list		EMPTY	Limited to list	A1,A2,B1,B2,C1,C2	
	x	x	x	other foreign language certificate	document		EMPTY	Pdf. Min,max weight?		
x	x	x	x	travelled in france	boolean	X	EMPTY			
x	x			travelled in france comment	text		EMPTY	Latin letters only		
x				Former metchnikov scholarship	boolean	X	EMPTY			
x				Former other french embassy scholarship	boolean	X	EMPTY			

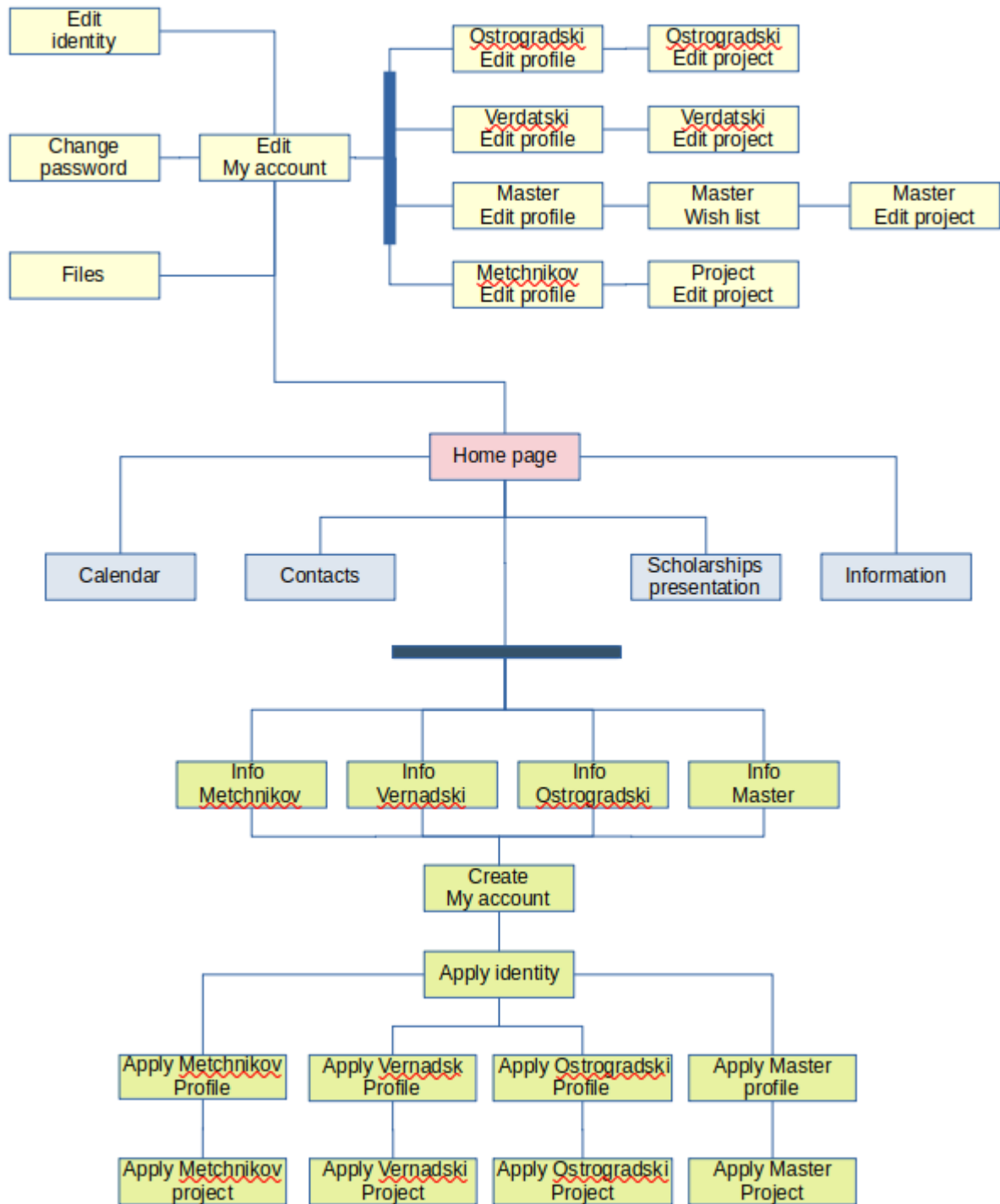
Appendix B2

Main data fields

metchnikov	vernadski	ostrogradsk	master	description	type	mandatory	default	validation rules	Db field comment	Interface comment
x	x	x	x	PROJECT						
x	x	x	x	name of institution	list	X	EMPTY	Limited to list	list to be given by BGF	
			x	course wish level	list	X	EMPTY	Limited to list	master,engineer	
			x	course wish year	list	X	EMPTY	Limited to list	1 st year, 2 nd year, 3 rd year	
			x	course wish field	list	X	EMPTY	Limited to list	list to be given by BGF	
			x	course wish name	text	X	EMPTY	Latin letters only		
			x	course wish working language	list	X	EMPTY	Limited to list	french, english	
			x	course wish motivation letter	document	X	EMPTY	Pdf. Min,max weight?		
			x	course wish admission letter	document	X	EMPTY	Pdf. Min,max weight?		
			x	course wish program	list	X	EMPTY	Limited to list	double degree, exchange agreement, individual mobility	
										combo box with list to be given by BGF + possible choice "other" to be input then by student
x	x	x		laboratory	text	x	EMPTY	Latin letters only		
	x	x		unit number	text		EMPTY	Latin letters only	15 characters	
x		x		institution city	list	x	EMPTY	Limited to list	automatically filled after name of institution is selected	
x		x		institution contact name	text	x	EMPTY	Latin letters only		
x		x		institution contact email	text	x	EMPTY	Latin letters only		
x	x	x		project name	text	x	EMPTY	Latin letters only		
x	x	x		scientific speciality	list	x	EMPTY	Limited to list	list to be given by BGF	
x	x	x		duration of stay in France	list	x	EMPTY	Limited to list	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4	in months, with 0.5 month step. Max 4 months
x	x	x		project description	document	x	EMPTY	Pdf. Min,max weight?		
	x	x		invitation or admission letter	document	x	EMPTY	Pdf. Min,max weight?		
x	x	x		endorsement letter	document	x	EMPTY	Pdf. Min,max weight?		
	x			thesis director name	text	x	EMPTY	Latin letters only		
	x			thesis director email	text	x	EMPTY	Latin letters only		
	x			convention process letter	document	x	EMPTY	Pdf. Min,max weight?	Max 3	Button "+" to add up to 3 docs

Appendix C1

Frontend interface diagram



Appendix C2

Backend interface diagram

