Web System Engineering

**Project Design Report**

|  |
| --- |
| **Team : <name>** |
| List of team members |

**I. Project Model**

|  |
| --- |
| **1.1. Content Model** |
| Paste your content model here |
| Every user will be registered in the User Table.  Each user will have more entries in the LoginHistories table.  Only the admin will have an entry in the Roles Table as admin, the other users are by default not admin.  Each user will have one or more accounts.  Bills and Taxes are a particular type of accounts. They only have ID and IBAN. |

|  |
| --- |
| **1.2. Hypertext / Navigation Model** |
| Paste your hypertext/navigation model here System FeaturesFunctional requirements for unregistered userUser register-in - Web application Description and Priority  The register is the first step for using the application. It is important because the user should have an account to be able to use the other functionalities of the application.  Stimulus/Response Sequences  -Access the application website  - Fill information – if something is not accepted, see an error message  - Press “Register in” button – add in the database the information of the new user  - Login with the account – The home view displayed  Functional Requirements  REQ-1: In case the filled in information is not valid, the user will be informed in a short message.  REQ-2: A new user account is created if the information filled in is valid. Functional requirements for adminAdmin login -in - Web application Description and Priority  The login is the first step for using the application as an admin user.  The admin has a default account and he/she can sign in with their email and correct password. It has a high priority because the admin should be logged to perform any other actions.  Stimulus/Response Sequences  -Access the application website  - Fill information – if something is not accepted, see an error message  - Press “Login” button – The admin will be able to view the admin interface.  Functional Requirements    REQ-1: In case the filled in information is not correct, the admin will be informed in a short message.  REQ-2: The Home view will be displayed if the information filled in is correct. Admin visualize clients- Web application Description and Priority  In order for an admin to supervise the users. It is high priority for the well maintenance of the application.  Stimulus/Response Sequences  - Access the visualize clients view – a table with all the accounts will be displayed.  Functional Requirements    REQ-1: See all the accounts. Admin activate/deactivate accounts Description and Priority  In some cases the admin must deactivate a user(the user will not be able to access the account but it is not deleted). And also to activate again after the problem is solved. It has high priority for the security of the application.  Stimulus/Response Sequences  - User notice the admin about his account issues.  - The admin will deactivate the account – the account will be seen as inactive  - The admin tries to solve the problem  - If problem solved, activate the account, if not create a new account for account for the user and announce him.  Functional Requirements    REQ-1: Deactivate the account when noticed the problem.  REQ-2: Activate the account again when problem solved.  REQ-3: Create a new account if the problem is not solved. Functional requirements for registered userUser login -in - Web application Description and Priority  The login is the first step for using the application as a registered user.  Given that a user has registered, then the user should be able to log in to the web application. The user can sign in with their email and correct password.  This is of high importance because this step is vital in order to perform any operations.  Stimulus/Response Sequences  -Access the application website  - Fill information – if something is not accepted, see an error message  - Press “Login” button – The user will be able to view the user interface.  Functional Requirements    REQ-1: In case the filled in information is not correct, the user will be informed in a short message.  REQ-2: The Home view will be displayed if the information filled in is correct. Edit and view personal information Description and Priority  The user should be able to view or edit his/her personal information: password, address ,e-mail address, phone number, first name, last name This is of high importance because this step is vital in order to perform any operations.  This is of high priority because the identity of the user must be correct and known by the admin/application. Stimulus/Response Sequences - Access the application website  - Go to the Profile view  - Update the information fields that are needed to be changed  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the application database. Add new account Description and Priority  The user should be able to add a new account number for which they have to configure a low limit and the currency .  This is of low priority because the option of adding new accounts is up to the user, as long as they have one valid account.  Stimulus/Response Sequences  - Access the application website  - Go to the Profile view, then Account info view  - Select “Add new account”  - Fill in the information required regarding the new account  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the application database. Services - bills Description and Priority  The user should be able to make payments for : various home bills, by filling in the required account numbers or bills IDs and the amount of money that are needed.  This is of medium priority because this option is of great use for all types of users.  Stimulus/Response Sequences  - Access the application website  - Go to the Services – Bills  - Fill in with the required information  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the Transactions history. Functional requirements for unregistered userUser register-in - Web application Description and Priority  The register is the first step for using the application. It is important because the user should have an account to be able to use the other functionalities of the application.  Stimulus/Response Sequences  -Access the application website  - Fill information – if something is not accepted, see an error message  - Press “Register in” button – add in the database the information of the new user  - Login with the account – The home view displayed  Functional Requirements  REQ-1: In case the filled in information is not valid, the user will be informed in a short message.  REQ-2: A new user account is created if the information filled in is valid. User information view Description and Priority  Given that a user has not registered, then the user should be able to see some information about the web application including information about admin contact.  It has a medium priority given the fact that a user should be able to get to know the web application.  Stimulus/Response Sequences  - Access the application website  - The information is displayed on the current page  Functional Requirements    REQ-1: The information regarding the application shall be displayed in a user friendly and easy to access manner Functional requirements for adminAdmin login -in - Web application Description and Priority  The login is the first step for using the application as an admin user.  The admin has a default account and he/she can sign in with their email and correct password. It has a high priority because the admin should be logged to perform any other actions.  Stimulus/Response Sequences  - Access the application website  - Fill information – if something is not accepted, see an error message  - Press “Login” button – The admin will be able to view the admin interface.  Functional Requirements    REQ-1: In case the filled in information is not correct, the admin will be informed in a short message.  REQ-2: The Home view will be displayed if the information filled in is correct. Admin visualize clients- Web application Description and Priority  In order for an admin to supervise the users. It is high priority for the well maintenance of the application.  Stimulus/Response Sequences  - Access the visualize clients view  - A table with all the accounts will be displayed.  Functional Requirements    REQ-1: See all the accounts. Admin activate/deactivate accounts Description and Priority  In some cases the admin must deactivate a user(the user will not be able to access the account but it is not deleted). And also to activate again after the problem is solved. It has high priority for the security of the application.  Stimulus/Response Sequences  - User notice the admin about his account issues.  - The admin will deactivate the account – the account will be seen as inactive  - The admin tries to solve the problem  - If problem solved, activate the account, if not create a new account for account for the user and announce him.  Functional Requirements    REQ-1: Deactivate the account when noticed the problem.  REQ-2: Activate the account again when problem solved.  REQ-3: Create a new account if the problem is not solved. Functional requirements for registered userUser login -in - Web application Description and Priority  The login is the first step for using the application as a registered user.  Given that a user has registered, then the user should be able to log in to the web application. The user can sign in with their email and correct password.  This is of high importance because this step is vital in order to perform any operations.  Stimulus/Response Sequences  -Access the application website  - Fill information – if something is not accepted, see an error message  - Press “Login” button – The user will be able to view the user interface.  Functional Requirements    REQ-1: In case the filled in information is not correct, the user will be informed in a short message.  REQ-2: The Home view will be displayed if the information filled in is correct. Edit and view personal information Description and Priority  The user should be able to view or edit his/her personal information: password, address,e-mail address, phone number, first name, last name This is of high importance because this step is vital in order to perform any operations.  This is of high priority because the identity of the user must be correct and known by the admin/application. Stimulus/Response Sequences - Access the application website  - Go to the Profile view  - Update the information fields that are needed to be changed  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the application database. Add new account Description and Priority  The user should be able to add a new account number for which they have to configure a low limit and the currency .  This is of low priority because the option of adding new accounts is up to the user, as long as they have one valid account.  Stimulus/Response Sequences  - Access the application website  - Go to the Profile view, then Account info view  - Select “Add new account”  - Fill in the information required regarding the new account  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the application database. Services - bills Description and Priority  The user should be able to make payments for : various home bills, by filling in the required account numbers or bills IDs and the amount of money that are needed.  This is of medium priority because this option is of great use for all types of users.  Stimulus/Response Sequences  - Access the application website  - Go to the Services – Bills  - Fill in with the required information  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the Transactions history. Services-pay taxes Description and Priority  The user should be able to make payments for : some taxes, like vignette. First the user has to choose the type of the car. Second the period of time that he/she can use it. He/She has to choose from which account to wire and fill the information about the car.  This is of medium priority because this option is of great use for all types of users.  Stimulus/Response Sequences  - Access the application website  - Go to the Services – Taxes  - Fill in with the required information  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app must be mirrored in the Transactions history. Transfers-to me Description and Priority  The user should be able to transfer amount of money between their different accounts in different currencies by choosing the account and the currency.  This is of high priority because this option is indispensable for the user.  Stimulus/Response Sequences  - Access the application website  - Go to the Payments – To my accounts  - Fill in with the required information  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app will be saved to “my payments” Transfers-to others Description and Priority  The user should be able to transfer amount of money to another user’s account, in different currencies by filling in the other user information.  This is of high priority because this option is indispensable for the user.  Stimulus/Response Sequences  - Access the application website  - Go to the Payments – To others  - Fill in with the required information  - Click “Save”  Functional Requirements    REQ-1: All the modifications done on the app will be saved to “my payments” Transactions history Description and Priority  The user should be able to choose and see the transactions history for every account they own.  This is of medium priority because this option is good for keeping track the transactions of the user.  Stimulus/Response Sequences  - Access the application website  - Go to the Transaction history  Functional Requirements    REQ-1: Display all the transactions made by the user. Customer Services ATM locations Description and Priority  User is able to view at all times on the home page a map where they can locate ATMs, as well as bank branches.  This is of high priority because this option helps the user to choose where his nearest ATM is, by looking at the map.  Stimulus/Response Sequences  - Access the application website  - View the map in the bottom left corner of the page  Functional Requirements    REQ-1: Locate the ATMs. Customer Services FAQ View Description and Priority  User is able to view at all times on the home page a list of the most frequent app related questions and answers to these.  This is of medium priority because this option helps the user to be informed at all times  Stimulus/Response Sequences  - Access the application website  - View the list in the bottom left corner of the page  Functional Requirements    REQ-1: View and select questions Logout Description and Priority  User is able to logout from his/her account.  This is of high priority because this option is mandatory for the user to exit the application.  Stimulus/Response Sequences  - Access the application website  - Click on the button “Log out”  Functional Requirements    REQ-1: Exit the application. |
| Briefly describe your hypertext/navigation model |

|  |
| --- |
| **1.3. Presentation Model** |
| Paste your presentation model here    Figure 2– Payments to own accounts view    Figure 3– Payments to own accounts view    Figure 4 - Services view    Figure 5 – Profile – account info - view    Figure 6 - Profile -personal info -view    Figure 7 - Transactions history    Figure 8 - Home view |
| Briefly describe your presentation model |

**II. Application Architectures**

|  |
| --- |
| **Technologies** |
| At this point, you should be able to choose the most suitable technologies (e.g. framework, libraries, database) for your application. List the technologies here.  ASP.NET Core MVC(5) Architecture  Views with Razor  Languages : C#, HTML, CSS |

**III. Testing and Usability**

|  |
| --- |
| **Testing Design** |
| - Determine a unit testing framework for your application  - Create a plan to test a CRUD operation of your application |