**Use Case Specification**

**DMT/RM01/TMP**

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| --- | --- |
| **Project Code** | **PRJ\_TransferFundsSystem\_001** |
| **Project Name** | **Transfer Funds System** |

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| --- | --- | --- |
| **Prepared/Modified by** | **Role** | **Date of Preparation** |
| **Jitendra Kushwah** | **Analyst** | **22nd January, 2017** |
| **Reviewed by** | **Role** | **Date of Review** |
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| **Approved by** | **Role** | **Date of Approval** |
| **Dayanand Patil** | **Consultant** |  |
| **Circulation List** |  | **Version Number of the template:1.1** |
| **Version Number** | **1.1** |  |

**<<Customer>> REVIEW HISTORY**

**<<Customer comments on the Use case along with the signed off is tracked here>>**

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| **Version** | **<<Version number>>** |  |  |  |  |  |
| **Date** | **<<Date of Review>>** |  |  |  |  |  |
| **Reviewed by** | **<< Reviewer Name>>** |  |  |  |  |  |
| **Reviewed UI Specification doc** | **<< Whether UI Specification doc is reviewed >>** |  |  |  |  |  |
| **All Open Queries/issues closed** | **<< Whether all the open queries and issues resolved>>** |  |  |  |  |  |
| **Agreement on Assumptions** | **<<Whether all the assumptions have been agreed upon by the customer>>** |  |  |  |  |  |
| **Sign Off** | **<<Signature>>** |  |  |  |  |  |

**Disclaimer:**

**The scope of the project ‘Trabnsfer Funds System’ is restricted to the contents of this signed off use case.**

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* Use Case Name: Login To the Transfer Funds System

Use Case ID: **UAS.USER.LOGIN\_001**

Brief Description: **<<Brief Description of the use case in approx 4-5 lines>>**

This Use Case describes the process by which users log into the Transfer Funds System.For Login user must be already registered on the System

* Actor(s):
* Account Holder (User)
* Cur\_ICENTURIAN
* Sav\_ICENTURIAN

***<<List the actors that can interact with this use case.***

***Note: Actors can be a sub system or other external system>>***

* Preconditions
* User has already registered on the Transfer Funds System
* User has entered the valid URL of Transfer Funds System and is directed to the home page
* User has valid user id and the password
* User has successfully logged into the banking system

***<< List the preconditions that should be in place before executing this use case.***

***These preconditions include state under which other system/sub system/entities will be in. >>***

* Flow of Events

4.1 Basic Flow

***<< Basic Flow is the main flow or heart of the Use case. Use case starts when the actor does some action i.e. an actor always initiate a use Case. The use case should describe what the actor does and what the system does in response. It should be phrased in the form of a dialog between the actor and the system.***

***The use case should describe what happens inside the system, but not how or why. If information is exchanged, be specific about what is passed back and forth. For example, it is not very illuminating to say that the Actor enters customer information; it is better to say the Actor enters the customer’s name and address. A Glossary of Terms is often useful to keep the complexity of the use case manageable; it defines things like customer information there, to keep the use case from drowning in details. >>***

Name: **Successful Login to the TFS**

* User clicks on the Login link on the Transfer Funds System home page.
* The system displays Login page
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password

Name: Transfer Funds to other account

* Successful Login into the System
* System retrives the Source and Detination Accounts
* System asks user to enter the first delivery date, frequency, number of times and transfer amount.
* User enters all the details
* System validates all the details entered by user
* On successful validation, system calculates transaction fee
* System performs balance check if source account is current account
* System displays all the details along with transaction fee for user verification
* User verifies and confirms the transfer
* System completes the transfer and credits into destination account and debits from source account
* Alternative Flows

***<<More complex alternatives should be described in a separate section, which is referred to in the basic flow of events section. Think of the alternative flow sections like alternative behaviour – each alternative flow represents alternative behaviour (many times, because of exceptions that occur in the main flow). They may be as long as necessary to describe the events associated with the alternative behaviour. When an alternative flow ends, the events of the main flow of events are resumed unless otherwise stated.***

***Note: Alternate flow should resume back to Basic Flow or Use case Ends. Always define the return or exit step>>***

* Alternate Flow 1
* User clicks on the Login link on the Transfer Funds System home page.
* The system displays Login page
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password
* The system validation fails due to invalid user credentials

4.2.2 Alternate Flow 2

* User clicks on the Apply for transfer money link on the TFS home page
* The system displays Login page
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password
* The system navigates user to the transfer money Page

4.2.3 Alternate Flow 3

Exception Flow 1: Login Failure Due to Invalid Credentials Exceeded Login Attempts

* User clicks on the Login link on the TFS home page
* The system displays Login page
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password

Exception Flow 2: Exceeded Login Attempts

* User clicks on the Login link on the TFS home page
* The system displays Login page
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password
* The system validation fails due to invalid user credentials and no more login attempts remaining
* The system suspends the user account
* The system informs the user that his/her account has been suspended

Exception Flow 3: Web Server Down

* User clicks on the Login link on the TFS home page
* The system displays an error message regarding web server unavailability problem

Exception Flow 4: Database Connectivity Error

* User clicks on the Login link on the TFS home page.
* The system displays Login page.
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password
* The system displays an error message regarding database connectivity problem.

Exception Flow 4: Insufficient Balance Error

* Successful Login into the System
* System retrives the Source and Detination Accounts
* System asks user to enter the first delivery date, frequency, number of times and transfer amount.
* User enters all the details
* System validates all the details entered by user
* On successful validation, system calculates transaction fee
* System performs balance check if source account is current account
* System displays an error message regarding insufficient balance issue

Exception Flow 5: Network Connectivity Error

* User clicks on the Login link on the TFS home page.
* The system displays Login page.
* User enters Username
* User enters Password
* User clicks on the Login button
* The system validates Username & Password
* The system displays an error message regarding network connectivity problem.
* Post Conditions

***<< Post conditions are the STATE where the system, sub-system and /or entities will be after Basic and /or Sub flow and/or Alternate flows are executed.***

***State the Post conditions for Basic flow + each and every Sub flow and Alternate flow.>>***

|  |  |
| --- | --- |
| **Flow Name** | **Post Condition** |
| Successful user login to the TFS | User will be logged in to the TFS successfully and system should navigate user to the Transfer money Page |
| Login to the TFS with reattempt | User will be logged in to the TFS successfully and system should navigate user to the Transfer money Page |
| Login to the TFS by transfer money option | User will be logged in to the TFS successfully and system should navigate user to the Transfer money Page |
| Exceeded Login Attempts | The system should suspend the user account and should inform the user that his/her account has been suspended |
| Web Server Down | The system should display an error message to the user regarding web server unavailability problem |
| Database Connectivity Error | The system should display an error message to the user regarding the database connectivity problem |
| Insufficient Balance Error | The system should display error message to the user regarding the insufficient balance issue |
| Network Connectivity Error | The system should display an error message to the user regarding the network connectivity problem |

* Special Requirements

***<<A Special Requirement is typically a non-functional requirement that is specific to a use case but is not easily or naturally specified in the text of the use case’s event flow.***

***Examples of special requirements include legal and regulatory requirements, application standards, and quality attributes of the system to be built, including usability, reliability, performance or supportability requirements. Additionally, other system common requirements such as operating systems and environments, compatibility requirements, and design constraints should be captured in Supplementary Specification.>>***

Performance

* The click on ‘view balance’shall display the balance of account within 30 seconds of user request

Availability

* The user can transfer money only on working days 24x7 but cannot register on national holidays.
* Application is up and running 24\*7

User Interface

* The letters on Menus shall be bold
* The active links should be displayed in red color
* The visisted links should be displayed in purpule color
* The Unvisited links should be displayed in blue
* The logout and back button should be available on every page of the application
* Look and feel and color of application should be proper.
* In case of Field level validation error messages should be displayed in red color.

Security

* The system shall display the letters of PIN numbers in a masked format when they are entered by the customer.
* User login should not have admin rights
* The TFS will allow user to Cancel prompt should be displyed the registration at any point.
* After clicking on back on browser it should takes you back to the previous page in the list
* After clicking on Forword on browser it should takes you forword to the next page in the list.
* User Session should get expire if user is inactive for 10 mins.
* Extension Points

***<<Mention the Extension points of the use case.>>***

Extension in Alternate Flow 1:

In step 7, if the customer has entered wrong user credentials :

1. The system prompts the user to re-enter the credentials

2. User enters the username and password

3. The system takes user to the Step 3 of Basic Flow

Extension in Alternate Flow x:

In step y, if the customer has entered wrong transfer amount in the transfer amount option :

* The system displays error message saying transfer amount must be greater than 0.
* User either backs out of this use case, or retries after entering correct data.
* Business Rules

***<<Identify any Business Rules applicable to this Use Case. Any generic business rule should be captured in a separate Common Business rules document or in the supplementary specification>>***

|  |  |  |
| --- | --- | --- |
| Business Rule Name | Business Rule Description | System action (if BR fails) |
| BR01 | First Delivery Date, Transfer Amount are mandatory | User is prompted to re-enter the credentials |
| BR02 | First Delivery Date Must be greater than todays date | Displayes error message “Please Select proper Date” |
| BR03 | Transfer Amount must be not be negative number | Displays error message “Invalid Amount” |
| BR04 | Insufficient balance check for current account (Account balance – (transfer amount+ transaction fee) >= 0) | Display error message “Insufficient balance” |
| BR05 | Minimum balance check for saving account (account balance – (transfer amount + transaction fee) >= 1000) | Display error message “Minimum balance after transaction must be greater than 1000” |

* Diagrams

Use Case Diagram for User

***<< Gives the relationship between Actors and Use cases [i.e. Main Use case, Include and Extends called by Main use case>>***



Activity Diagram<<Not Applicable>>

***<< Activity Diagram gives the high level interaction between the user, system and sub systems. Ideally only one activity diagram should be made per use case. >>***

* Scenarios

***[Identify the scenarios using Basic Flow, Sub flow and Alternate flows]***

Success Scenarios

***[List different success scenario.]***

* Successful user login to the Transfer Funds System
* Login to the Transfer Funds System with reattempt

Failure Scenarios

***[List different failure scenario]***

***<< Failure scenarios should include exceptions, validation of Use case and Common Business Rules, UI Validation and other failure conditions of the use case>>***

* Exceeded Login Attempts
* Web Server Down
* Database Connectivity Error
* Insufficient Balance Error
* Network Connectivity Error
* Issues

***<< List any potential problems or known dependencies that are likely to cause this use case to fail (technical failure, staff absence, etc).***

***Note that this section should not have Queries related to this use case here, they should be tracked in a separate excel. If you wish you could link to that excel? >>***

* What is the maximum size of username and password that a user can have ?
* What if the user is blocked after invalid login attempts for three times ?
* UI Specifications

***<< Provide a link to the UI specification document of the Use case. Please don’t embed the document here>>***

* Inter System Dependencies

***<<Mention the related functionality within the application that is impacted because of this use case. E.g variable or value settings in this use-case which will have a direct impact on the functionality of another use-case. Or vice-versa.>>***

Module: **‘Transfer Funds to Other account’ gets impacted due to :**

Use case name: **Alternate Flow 1**

Impact: **If the user tries to transfer funds without login, he should be denied so. <<Mention the impact on the above mentioned Use case because of this use case>>**

* Integration with an already existing System of the <<Customer>><<Not Applicable>>

***<< This is especially applicable if the project at hand is an enhancement to an existing system.>>***

* Assumptions

***<< List down all the assumptions considered by this use case>>***

* The User should be authenticate.
* User should know the valid URL of University Admission System.
* User should have Google chrome browser for best view of site.

**REVISION HISTORY OF THE WORK PRODUCT**

**<to be maintained by projects>**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **Date** | **Version #** | **Section Changed** | **Details of changes made** | **Approved By** |
| **1** |  |  |  |  |  |
| **2** |  |  |  |  |  |