**COMSATS University Islamabad,   
Park Road, Chak Shahzad, Islamabad Pakistan**

**SOFTWARE REQUIREMENTS SPECIFICATION   
(SRS DOCUMENT)**

**for**

**<PROJECT NAME>**  
Version 1.0

***By***

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***Bachelor of Science in Computer Science (20xx-20xx)***

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**Revision History**

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| **Name** | **Date** | **Reason for changes** | **Version** |
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|  |  |  |  |

**Application EvaluationHistory**

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| **Comments (by committee)**  **\*include the ones given at scope time both in doc and presentation** | **Action Taken** |
|  |  |
|  |  |

**Supervised by**

**<Supervisor’s Name>**

Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* **Introduction**

The proposed system is compromised of a bot that will be used to answer all the customer’s queries regarding a specific bank .it will answer all the question of customers such as House loan, Car loan, Insurance , Bank accounts information.

* **Purpose**

Identify the product or application whose requirements are specified in this document.

* **Scope**

Provide a short description of the software being specified and its purpose. You might provide a high-level summary of the major features the software contains or the significant functions that it performs.

* **Overall description**
* **Product perspective**

Describe the product’s context and origin. Is it the next member of a growing product line, the next version of a mature system, a replacement for an existing application, or an entirely new product?

* **Operating environment**

Describe the environment in which the software will operate, which might include the hardware platform; operating systems and versions; geographical locations of users, servers, and databases; and organizations that host the related databases, servers, and websites.

Example:

*OE-1: The System shall operate correctly with the following web browsers: Windows Internet Explorer versions 7, 8, and 9; Firefox versions 12 through 26; Google Chrome (all versions); and Apple Safari versions 4.0 through 8.0.*

* **Design and implementation constraints**

There are times when a certain programming language must be used, a code library that has already had time invested to develop it needs to be used, and so forth. Describe any factors that will restrict the options available to the developers and the rationale for each constraint. Constraints are described further in Chapter 14, “Beyond functionality.”

Example:

*CO-1: The system shall use the current corporate standard Oracle database engine*

* **Requirement identifying technique**

This section describes the requirements identifying technique(s) which further help to derive functional requirements specification. The selection of the technique(s) will depend on the type of project. For instance,

* **Use case** is an effective technique for interactive end-user applications
* **Event- response tables** is for real time system and
* **Story boarding** for graphically intensive applications.

In addition to above, the projects involving data warehouses, batchprocesses, hardware devices with embedded control software, and computationallyintensive applications required to follow other suitable techniques. Such techniques are described further in Chapter 12, “A picture is worth 1024 words.” For documenting this section let consider identifying requirements through use case as an example.

* **Use case diagram**

Create a use case diagram using **MS Visio** for your system. For detail guideline to develop use case diagram, follow any of latest **UML book**]

* **Use case description**

The table below indicate a comprehensive use case template filled in with an example drawn from the Cafeteria ordering system (COS). (Appendix C) shows more sample use cases written according to this template. As with all templates, you don’t complete this from top to bottom, and you don’t necessarily need all the template information for every use case. The template is simply a structure in which to store the information you encounter during a use case discussion in an organized and consistent fashion. The template reminds you of all the information you should contemplate regarding each use case. For more detail see Chapter 8, “Understanding user requirements”

**Table 1 Show the detail use case template**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-01 |
| **Use Case Name:** | Chat casually |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user is casually chatting with system. The system will respond with 'Hello'. |
| **Trigger:** | The user writes something that's not a request: "Hi" |
| **Preconditions:** | PRE-1. User is in a private chat with system . |
| **Postconditions:** | POST-1. The system responds with corresponding answer: "Hello" |
| **Normal Flow:** | 1.The system writes something that's not a request: "Hi".  2. The system responds with corresponding answer: "Hello" |
| **Alternative Flows:** | 1 The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends  2 . User can ask question by sending voice message to system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | n/a |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-02 |
| **Use Case Name:** | Provide Answer Related to query |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyze the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The system writes something that's not a request: "Hi".  2. The system responds with corresponding answer: "Hello" |
| **Alternative Flows:** | 1. The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-03 |
| **Use Case Name:** | View Answer |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The system writes something that's not a request: "Hi".  2. The system responds with corresponding answer: "Hello"  3. User received reply send by the system. |
| **Alternative Flows:** | 1. The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends 2. User can also listen message that is send by the system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-04 |
| **Use Case Name:** | Ask for House Loan policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user can ask about the bank's house loan policies. System will send all the details about the house loan policies in reply to customer. |
| **Trigger:** | Users ask about the House loan policies of the bank |
| **Preconditions:** | PRE-1. User is in a private chat with system . |
| **Postconditions:** | POST-1. The system replies: “We have <This Policy > for House loans.” |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about House loans.”.  2. The system replies: “We have <This Policy > for House loans.” |
| **Alternative Flows:** | 1 The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends  2 . User can ask question by sending voice message to system |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-05 |
| **Use Case Name:** | Provide policies for House loan |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyse the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about House loans.”.  2. The system replies: “We have <This Policy > for House loans.” |
| **Alternative Flows:** | n/a |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-06 |
| **Use Case Name:** | View Home loan Policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about House loans.”.  2. The system replies: “We have <This Policy > for House loans.”  3. User received reply send by the system. |
| **Alternative Flows:** | 1. The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends 2. User can also listen details that are send by the system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-07 |
| **Use Case Name:** | Ask for Car Loan policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user can ask about the bank's car loan policies. System will send all the details about the car loan policies in reply to customer. |
| **Trigger:** | Users ask about the Car loan policies of the bank |
| **Preconditions:** | PRE-1. User is in a private chat with system . |
| **Postconditions:** | POST-1. The system replies: “We have <This Policy > for Car loans.” |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about Car loans.”.  2. The system replies: “We have <This Policy > for Car loans.” |
| **Alternative Flows:** | 1 The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends  2 . User can ask question by sending voice message to system |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| **Use Case ID:** | UC-BB-08 |
| **Use Case Name:** | Provide policies for car loan |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyze the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about car loans.”.  2. The system replies: “We have <This Policy > for car loans.” |
| **Alternative Flows:** | 1. The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-07 |
| **Use Case Name:** | View Car loan Policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about Car loans.”.  2. The system replies: “We have <This Policy > for Car loans.”  3. User received reply send by the system. |
| **Alternative Flows:** | 1. The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends 2. User can also listen details that are send by the system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-08 |
| **Use Case Name:** | Ask for Mutual funds investment policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user can ask about the bank's Mutual funds investment policies. System will send all the details about the Mutual funds investment in reply to customer. |
| **Trigger:** | Users ask about the Mutual funds investment policies of the bank |
| **Preconditions:** | PRE-1. User is in a private chat with system . |
| **Postconditions:** | POST-1. The system replies: “We have <This Policy > for Mutual funds investment.” |
| **Normal Flow:** | 1.The actor asks the system “What is your policy about Mutual funds investment”.  2. The system replies: “We have <This Policy > for Mutual funds investment.” |
| **Alternative Flows:** | .1 . User can ask question by sending voice message to system |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-09 |
| **Use Case Name:** | Provide policies for Mutual funds investment |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyze the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about Mutual funds investment”.  2. The system replies: “We have <This Policy > for Mutual funds investment.” |
| **Alternative Flows:** | 1. The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-10 |
| **Use Case Name:** | View Mutual funds investment Policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The actor asks the system: “What is your policies for Mutual funds investment.”.  2. The system replies: “We have <This Policy > for Mutual funds investment.”  3. User received reply send by the system. |
| **Alternative Flows:** | 1. User can also listen details that are send by the system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-11 |
| **Use Case Name:** | Ask for Bank Account information |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user can ask about the bank accounts and all the related details.in the reply system will send details of asked question. |
| **Trigger:** | Users ask about the Bank Account policies of the bank |
| **Preconditions:** | PRE-1. User is in a private chat with system . |
| **Postconditions:** | POST-1. The bot replies: “We have <This Policy > for Bank Accounts.” |
| **Normal Flow:** | 1.The actor asks the bot: “What is your policy about Bank Accounts.”.  2. The bot replies: “We have <This Policy > for Bank Accounts.” |
| **Alternative Flows:** | 1 . User can ask question by sending voice message to system |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
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| **Use Case ID:** | UC-BB-12 |
| **Use Case Name:** | Provide Bank accounts policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyze the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about bank accounts.”.  2. The system replies: “We have <This Policy > for bank accounts.” |
| **Alternative Flows:** | 1 The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-13 |
| **Use Case Name:** | View Bank Account Policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about bank accounts.”.  2. The system replies: “We have <This Policy > for bank accounts.”  3. User received reply send by the system. |
| **Alternative Flows:** | 1. User can also listen details that are send by the system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-17 |
| **Use Case Name:** | Ask for ATM policies of Bank |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user can ask about the security of bank and its transactions. In reply bot will send all the details that are asked by the customer regarding any security issue. |
| **Trigger:** | Users is asking about the bank and its ATMs. |
| **Preconditions:** | PRE-1. User is in a chat with system . |
| **Postconditions:** | POST-1. The system replies: “We have <This Policy > for bank and its transaction.” |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about ATM.”.  2. The system replies: “We have <This Policy > for ATM.” |
| **Alternative Flows:** | 1 . User can ask question by sending voice message to system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-18 |
| **Use Case Name:** | Provide ATM policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyze the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about ATM.”.  2. The system replies: “We have <This Policy > for ATM.” |
| **Alternative Flows:** | 1 The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-19 |
| **Use Case Name:** | View policies related to ATM |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about ATM.”.  2. The system replies: “We have <This Policy > for ATM.”  3. User received reply send by the system. |
| **Alternative Flows:** | 1. User can listen details that are send by System. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  diagramBR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-17 |
| **Use Case Name:** | Ask for Debit card/Credit policies of Bank |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The user can ask about the security of bank and its transactions. In reply bot will send all the details that are asked by the customer regarding any security issue. |
| **Trigger:** | Users is asking about the bank and its ATMs. |
| **Preconditions:** | PRE-1. User is in a chat with system . |
| **Postconditions:** | POST-1. The system replies: “We have <This Polidiagramcy > for bank and its transaction.” |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about Debit card/Credit .”.  2. The system replies: “We have <This Policy > for Debit card/Credit ” |
| **Alternative Flows:** | 1 . User can ask question by sending voice message to system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

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| --- | --- |
| **Use Case ID:** | UC-BB-24 |
| **Use Case Name:** | Provide Debit card/Credit card policies |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | User | Secondary Actors: | System | |
| **Description:** | The use case will allow System to analyze the query asked by the user and provide answer to user. |
| **Trigger:** | User will trigger this use case by asking any Bank related query. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | The system will provide an answer to users regarding asked query. |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about Debit card/Credit card.”.  2. The system replies: “We have <This Policy > for Debit card/Credit card” |
| **Alternative Flows:** | 1 The system does not understand the request saying: “I am sorry, but I do not understand.”, and the scenario ends. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

|  |  |
| --- | --- |
| **Use Case ID:** | UC-BB-25 |
| **Use Case Name:** | View Policies related to Debit card/Credit card |
| **Actors:** | |  |  |  |  | | --- | --- | --- | --- | | Primary Actor: | System | Secondary Actors: | User | |
| **Description:** | The use case will allow user to view reply that is send by the system regarding user request. |
| **Trigger:** | System will trigger this use case by sending response back to user. |
| **Preconditions:** | PRE-1. User has asked a query from system. |
| **Postconditions:** | n/a |
| **Normal Flow:** | 1.The actor asks the system: “What is your policy about Debit card/Credit card.”.  2. The system replies: “We have <This Policy > for Debit card/Credit card.”  3. User received reply send by the system. |
| **Alternative Flows:** | 1. User can listen reply send by the system. |
| **Exceptions:** | 1.0 User is disconnected from the system.  2.0 Server is down. |
| **Business Rules** | Use cases and business rules are intertwined. Some business rules constrain which roles can perform all or parts of a use case. Perhaps only users who have certain privilege levels can perform specific alternative flows. That is, the rule might impose preconditions that the system must test before letting the user proceed. Business rules can influence specific steps in the normal flow by defining valid input values or dictating how computations are to be performed e.g.  BR-1 Delivery time windows are 15 minutes, beginning on each quarter hour.  BR-2 Deliveries must be completed between 11:00 A.M. and 2:00 P.M. local time, inclusive.  Note: If you are maintaining the business rule in a separate table in SRS then only mention here their IDs. |
| **Assumptions:** | [List any assumptions.   * e.g. Assume that 15 percent of Patrons will order the daily special (Source: previous 6 months of cafeteria data). |

* **Functional Requirements**

This section describes the functional requirements of the system expressed in natural language style. This section is typically organized by feature as system feature name and specific functional requirements associated with this feature. It is just one possible way to arrange them. Other organizational options include arranging functional requirements by use case, process flow, mode of operation, user class, stimulus, and response depend what kind of technique which has been used to understand functional requirements. Hierarchical combinations of these elements are also possible, such as use cases within user classes. For further detail see Chapter 10 “Documenting the requirements”. Let consider feature scheme as an example.

* **Functional Requirement X**

Itemize the specific functional requirements associated with each feature. These are the software capabilities that must be implemented for the user to carry out the feature’s services or to perform a use case. Describe how the product should respond to anticipated error conditions and to invalid inputs and actions. Uniquely label each functional requirement, as described earlier. You can create multiple attributes for each functional requirement, such as rationale, source, dependencies etc. The following template is required to write functional requirements. For further detail see Chapter 11” Writing excellent requirements”.

**Table 2 Show the functional requirement template**

|  |  |
| --- | --- |
| **Identifier** | Requirement ID |
| **Title** | Title of requirement |
| **Requirement** | Description of requirement which may be written either from user or system perspective e.g.  If written in **user perspective**  The [user class or actor name] shall be able to [do something] [to some object] [qualifying conditions, response time, or quality statement].  If written in **system perspective**  [optional precondition] [optional trigger event] the system shall [expected system response] |
| **Source** | Where this requirement is come from (who originate it) |
| **Rationale** | Motivation behind the requirement |
| **Business Rule (if required)** | Any restriction, policy, rule that the particular rrequirement must be fulfilled through its functional behavior |
| **Dependencies** | Requirements ID that are dependent on this requirement |
| **Priority** | High/Medium/Low |

* **Non Functional Requirements**

This section specifies nonfunctional requirements other than constraints, which are recorded in section 2.3, and external interface requirements, which will appear in section 7. These quality requirements should be specific, quantitative, and verifiable. Chapter 14 “beyond functionality” presents more information about these quality attribute requirements and many examples. Following are some example for documenting guideline.

* **Usability**

Usability requirements deal with ease of learning, ease of use, error avoidance and recovery, efficiency of interactions, and accessibility. The usability requirements specified here will help the user interface designer create the optimum user experience.

Example:

*USE-1: The COS shall allow a user to retrieve the previous meal ordered with a single interaction.*

* **Performance**

State specific performance requirements for various system operations. If different functional requirements or features have different performance requirements, it’s appropriate to specify those performance goals right with the corresponding functional requirements, rather than collecting them in this section.

Example:

*PER-1: 95% of webpages generated by the COS shall download completely within 4 seconds from the time the user requests the page over a 20 Mbps or faster Internet connection.*

* **References**

List any documents or other resources to which this SRS refers, if any. These might include user interface style guides, standards, system requirements specifications, interface specifications, or the SRS for a related product.