

**Requirements Engineering**

**Scrum Methodology**

**CUSTOMER BILLING SYSTEM**

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**PRODUCT BACKLOG OF CUSTOMER BILLING SYSTEM**

The Customer tells us they want a system which keep records such as name, address, mobile number, paid amount, due amount, payment data of their clients.

The customer wanted the system to add and edit their client’s account details at any time, in case they had a new client.

The customer also want the system to eliminate manual billing and invoicing and also want the system to be secured.

We collaborate more with the Customer on their needs or requirements and define the system features and corresponding benefit, as depicted in the table below. Take into consideration that we have benefits that influence the system’s functionality and constrain its design and final form.

|  |  |
| --- | --- |
| **Features** | **Benefits** |
| shall generate bills | To eliminate manual billing and invoicing |
| Shall have a Login menu | To increase data security |
| shall add or edit client’s account | To increase validity of current client’s data |
| Shall store records e.g. customer details | create a long term relationship between the customer and the organisation. |
| will allow review of items entered in the system | In order to allow the administrator to check whether he entered the data correctly or not. |

**Stories for the Product Backlog**

**Functional Requirements**

Story A

As a **bill editor** I want to add and edit client’s account details so that it is easy to increase validity of current client’s data.

Story B

As a **bill editor** I want the system to calculate bills so that accurate computation of bills is achieved.

Story C

As a **bill editor** I want to review the list of client’s data entered into the system so that I could edit and make corrections if there are any.

Story D

As a **bill editor** I want to delete wrongly entered client’s account details so that data accuracy is maintained.

Story E

As **Administrator** I want to search if a certain product has already been entered into the system using product code so that i won’t enter different products with same product code.

Story F

As **Administrator** I want to add, edit and delete product details so that it is easy to increase validity of current products data.

**Non Functional Requirements**

Story G

As **Administrator** I want data of products to be accessed only by authorized members so that access security is maintained. The access permissions for system data may only be changed by administrator.

Story H

As **Administrator** I want the system to handle the entry of products at a minimum rate of 1 per 3 seconds so that efficiency is achieved during data capturing.

Story I

As **a Bill editor**  I want the system to prevent access to failed functions by the use of try catch blocks so as to enhance survivability during system failure.

Story J As **a Bill editor**  I want the system to be developed for Windows 7 64 bit operating platforms so that portability is achieved.

Story K As **a Bill editor**  I want all monetary amounts to be accurate to two decimal places so that data integrity is achieved.

**PRODUCT BACKLOG**

|  |  |  |
| --- | --- | --- |
| ***STORY*** | **PRIORITY** | **POINTS** |
| **A** | **2** | **8** |
| **B** | **1** | **15** |
| **C** | **6** | **8** |
| **D** | **5** | **6** |
| **E** | **7** | **3** |
| **F** | **3** | **8** |
| **G** | **4** | **9** |
| **H** | **8** | **6** |
| **I** | **11** | **3** |
| **J** | **9** | **2** |
| **K** | **10** | **3** |

**SPRINT BACKLOG**

|  |  |  |  |
| --- | --- | --- | --- |
| **BACKLOG ITEM** | **NOT STARTED** | **IN PROGRESS** | **COMPLETED** |
| ***USER STORY******A*** |  |  |  |
| Creating an add client\_details function |  | **x** |  |
| Creating edit client\_details function |  | **x** |  |
| ***USER STORY******B*** |  |  |  |
| Creating calculate function | **x** |  |  |
| ***USER STORY******C*** |  |  |  |
| Creating a review function | **x** |  |  |
| ***USER STORY******D*** |  |  |  |
| Creating a delete function | **x** |  |  |
| ***USER STORY******E*** |  |  |  |
| Creating a search function | **x** |  |  |
| ***USER STORY******F*** |  |  |  |
| Creating add product function  Creating edit product function  Creating delete product function | **X**  **X**    **x** |  |  |
| ***USER STORY******G*** |  |  |  |
| Creating a login menu for administrator |  | **x** |  |
| ***USER STORY******H*** |  |  |  |
| Handling entry of products | **x** |  |  |
| ***USER STORY******I*** |  |  |  |
| Creating a try catch block | **x** |  |  |
| ***USER STORY******J*** |  |  |  |
| Testing portability | **x** |  |  |
| ***USER STORY******K*** |  |  |  |
| Testing data integrity | **X** |  |  |