Jinnah university for women

**Software Engineering (CSC – 3111)**

**Batch CS-2020**

**Submitted by:**

**Group Members:**

* **Hareem Imran**
* **Insharah Riaz**
* **Ujala Shah**

**Submitted to: Ms. Sadia Javed**

**Submitted on: 25 – February – 2022**

**February 2022**

**Department of Computer Science and Software Engineering**

**Jinnah University for Women**

5-C Nazimabad, Karachi 7460

**Table of Contents**

[**Introduction:** 2](#_Toc98603055)

[**Overview of the Project:** 2](#_Toc98603056)

[**Objectives of the project:** 3](#_Toc98603057)

[**Scope of the project:** 3](#_Toc98603058)

[**Feasibility Study:** 3](#_Toc98603059)

[**Financial Feasibility:** 3](#_Toc98603060)

[**Technical Feasibility:** 4](#_Toc98603061)

[**Resource & Time Feasibility:** 4](#_Toc98603062)

[**Risk Feasibility:** 4](#_Toc98603063)

[**Social/Legal Feasibility:** 5](#_Toc98603064)

# **Introduction:**

## **Overview of the Project:**

BMS is a Bank Management System which information of bank and branches, handling the account data of customers, and control transactions of all account. BMS is a Software (Desktop application) that provides interfaces for various stakeholders (branch's manager, bank's employees and accountant). BMS including entities such as bank, service, employees, customers, account, accountants, transactions and a weak branch entity. It allows us to understand the relationships between entities.

Relationships are:

* **Bank has Branches:**

One Bank can have many Branches but one branch cannot belong to many banks, so the relationship between Bank and Branch is one to many relationships.

* **Branches have Employees:**

Many Branches are related with Many Employees but an employee only related to one branch. So, Branches and Employee is many to one relationship.

* **Branches Provide Services:**

Branch can provide many services but that one service only provides from that particular branch. Therefore, the relation between branches and services is Many to One.

* **Services Provide to Customers:**

One Customer can have one or many services but it is not necessary that many service can not be provide to only one customer. Loan availed to Customer as a Bank service. Customer and Services has One to Many relations.

* **Accounts held by Customer:**

One Customer can have more than one Accounts and also One Account can be held by one or more Customers, so the relationship between Account and Customers is many to many relationships.

* **Accounts Maintain by Accountants:**

One Account is maintained by one accountant but one accountant is maintaining many accounts of Customers. The relation between Account and Accountant is One to Many relations.

* **Account and Transactions:**

One Account can have many transactions but that one transaction is only passed by one account. So, the Account and Transaction has One to Many relations.

## **Objectives of the project:**

* Accountant easily control and maintain all customer accounts.
* All customer's accounts updated.
* All branch’s accounts are sorted list wise.
* Transaction process is easily to manage.

## **Scope of the project:**

**Main actors of this system**

* Bank Management
* Branch Manager
* Accountant
* Bank Administration

**Main use cases associated:**

1. **Bank Management**

* It implements and follow rules, regulation, and policies.
* Directing, controlling and motivating.
* Disturb the duties.

1. **Bank Manager**

* The head of accountant.
* Check the accountant duty.

1. **Accountant**

* Manage account for each customer.
* Do transaction.
* View and check account for each customer.

1. **Administrative Staff**

* It frames the rules, regulation, and policies.
* Organize all databases relating to customers.
* Sell banking products and services to customers.

# **Feasibility Study:**

## **Financial Feasibility:**

BMS will have a hosting expense because it is a software. The bandwidth required for the functioning of this application is quite low because the system does not include any multimedia data transport.

The system will adhere to the freeware software guidelines. The potential clients will not be charged anything. There will be a cost connected with bug repairs and maintenance tasks. The potential market space at first will be local banks and for learning establishments.

Customers will reap numerous benefits in addition to the accompanying expense. Because report generation is totally automated, the extra effort connected with paper making, managing and data record will be considerably reduced, while the effort associated with creating descriptive statistical reports will be eliminated. It is obvious from these that the BMS project is financially feasible.

## **Technical Feasibility:**

Project BMS is a complete software desktop application.

The main technologies and tools that are associated with BMS are:

* C#
* MySQL (Apache)
* Java script
* NetBeans
* HTML
* CSS
* Diagram drawing tools
* Microsoft Project
* Draw.IO
* Visio

Each of the technologies are freely available and the technical skills required are manageable. Time limitations of the product development and the ease of implementing using these technologies are synchronized. Initially the web site will be hosted in a free web hosting space, but for later implementations it will be hosted in a paid web hosting space with a sufficient bandwidth. Bandwidth required in this application is very low, since it doesn’t incorporate any multimedia aspect. From these it’s clear that the project BMS is technically feasible.

## **Resource & Time Feasibility:**

Resources that are required for the BMS project includes,

* Programming device (Laptop, Computer)
* Hosting space (freely available)
* Programming tools (freely available)
* Programming individuals

So, it’s clear that the project BMS has the required resource feasibility.

## **Risk Feasibility:**

Risk feasibility can be discussed in a variety of situations.

Estimated product size based on the number of programs:

Despite the fact that the software application will serve a large number of stakeholders, it will be built as a single software application with a single login page rather than a series of sites for distinct users. The contents will be shown or concealed depending on the access rights.

Database size (generated or utilized by the product):

The database size will not exceed MySQL's limit of 65526 items per table. Using best practices from normalization theories, the number of relations and entities is reduced.

Users of the product:

* Branch Manager (Accountant)
* Employees
* Services (transaction form, loan)

## **Social/Legal Feasibility:**

BMS makes use of freely available development tools and makes the system available as an open-source project. Potential clients will only be charged for maintenance costs.