**COMSATS University Islamabad, Abbottabad Campus**

**Department of Computer Science**

**Project Proposal**

**NextGen POS System**

**CSC392 Object Oriented Software Engineering**

Submitted on: <Date&Time>

Group Members:

Name 1 (Reg No.)

Name 2 (Reg No.)

Name 3 (Reg No.)

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# CHAPTER 1 PROJECT PROPOSAL

## Introduction

[Text Book: 3.3. Case One: The NextGen POS System]

## Vision and Business Case

***Describes the high-level goals and constraints, the business case, and provides an executive summary.***

[Text Book: 7.6. NextGen Example: (Partial) Vision]

## Use-Case Model

Describes the functional requirements. During inception, the names of most use cases will be identified, and perhaps 10% of the use cases will be analyzed in detail.

## Supplementary Specification

***Describes other requirements, mostly non-functional. During inception, it is useful to have some idea of the key non-functional requirements that have will have a major impact on the architecture.***

[Text Book: 7.4. NextGen Example: (Partial) Supplementary Specification]

## Glossary

***Key domain terminology, and data dictionary.***

7.8. NextGen Example: A (Partial) Glossary

## Risk List & Risk Management Plan

***Describes the risks (business, technical, resource, schedule) and ideas for their mitigation or response.***

* + For example, leadership really wants a demo at the POSWorld trade show in Hamburg, in 18 months. But the effort for a demo cannot yet be even roughly estimated until deeper investigation.
  + For example, in the NextGen POS, for what remote services (e.g., tax calculator) will fail-over to local services be allowed? Why? Do they provide exactly the same services locally as remotely, or are there differences?

# CHAPTER 2 USE CASES

## Use Case Diagram

<Paste your semester project diagram imported from CASE Tool i.e. starUML here>

## Brief Level Use Cases

### ZAIN ASIF (FA20-BSE-136)

#### Use Case: Deposit

Bank deposits consist of money placed into banking institutions for safekeeping. These deposits are made to deposit accounts such as savings accounts, checking accounts, and money market accounts. The account holder has the right to withdraw deposited funds, as set forth in the terms and conditions governing the account agreement. This use case begins when the client enters the bank with the intent of deposit some money when he created his type of account in the bank. The client will access to deposit money in his account .He will hand-over the slip to the cashier, the cashier will recount the money to verify the amount is correct. The client has successfully deposited money in his account through slip.

Student Name 2 (Registration Number 2)

Student Name 3 (Registration Number 3)

Fully Dressed Use Cases

|  |  |
| --- | --- |
| Use Case Section | Comments |
| Use case name | loan |
| Scope | Banking management system |
| Level | Basic level |
| Primary actor | Customer, loan officer |
| Stakeholders & interest |  |
| Precondition | Must have some properties on your name |
| Success guarantee | The customer request for the loan and after inquiry by the bank and loan is apporved |
| Main success scenario |  |
| Exception |  |
| Special requirements |  |
| Technology and data Variation list |  |
| Frequency of occurrence |  |
| Miscellaneous |  |

### ZAIN ASIF (FA20-BSE-136)

| Use Case UC1: Deposit |
| --- |
| **Scope**: Banking Management System  **Level**: the User successfully deposit money in his account  **Primary** **Actor**: Customer ,Cashier  **Stakeholders and Interests**:  - Cashier: Wants accurate, fast entry, and no payment errors, as cash drawer shortages are deducted from his/her salary.  - Customer: Wants deposit and fast service with minimal effort. Wants easily in depositing money in his account. Wants proof of purchase to support returns.  - Bank Manager: Wants to accurately record transactions and satisfy customer interests. Wants to ensure that Payment Authorization Service payment receivables are recorded.  - Maintenance: Wants to be able to quickly perform override operations, and easily debug Cashier problems.  - Deposit Authorization Service: Wants to receive digital authorization requests in the correct format and protocol. Wants to accurately account for their payables to the store.  **Preconditions**: User must have a Bank Count to deposit money and Cashier is identified and authenticated. |

**Success Guarantee** (or Post conditions): deposit is saved. Deposit money is correctly calculated. Accounting and account is updated. Receipt is generated. Deposit authorization approvals are recorded.

**Main Success Scenario (or Basic Flow):**

1. Customer arrives at bank to deposit.
2. Cashier starts a new payee.
3. Cashier enters user information.
4. System records deposit process.
5. Cashier repeats counting deposited money 1-2 until it is verify.
6. System presents total with taxes calculated.
7. Cashier tells Customer the total, and asks for deposit.
8. Customer deposits and System handles the process. Receipt.
9. Customer leaves with receipt (if any).

**Extensions (or Alternative Flows)**

\*b. At any time, System fails:

1. Cashier restarts System, logs in, and requests recovery of prior state.
2. System reconstructs prior state.
3. System signals error to the Cashier, records the error, and enters a clean state.
4. Cashier starts a new sale.
5. Sale not found. System signals error to the Cashier.
6. Cashier probably starts new sale and re-enters all items.
7. Cashier continues with deposit (probably entering more amount of money or handling payment).

**Special Requirements:**

- Touch screen UI on a large flat panel monitor. Text must be visible from 1 meter.

- Process authorization response within 30 seconds 80% of the time.

- Somehow, we want robust recovery when access to remote services such the inventory system is failing.

- Language internationalization on the text displayed.

- Pluggable business rules to be insertable at steps 3 and 7.

- …

**Technology and Data Variations List**:

\*a. Manager override entered by swiping an override card through a card reader, or entering an authorization code via the keyboard.

3a. Item identifier entered by bar code laser scanner (if bar code is present) or keyboard.

3b. Item identifier may be any UPC, EAN, JAN, or SKU coding scheme.

7a. Credit account information entered by card reader or keyboard.

7b. Credit payment signature captured on paper receipt. But within two years, we predict many customers will want digital signature capture.

Frequency of Occurrence: Could be nearly continuous.

**Open Issues:**

- What are the tax law variations?

- Explore the remote service recovery issue.

- What customization is needed for different businesses?

- Must a cashier take their cash drawer when they log out?

- Can the customer directly use the card reader, or does the cashier have to do it?

**Screen Shots:**

<Paste the images from netbeans here for the relevant screen>

**Rahim Khan[ 050]**

**Scope:** Banking Management System

**Level**: the User successfully take loan

**Primary Actor**: Customer, loan officer

**Stakeholders and Interests:**

- Cashier: Wants accurate, fast entry, and no payment errors, as cash drawer shortages are deducted from his/her salary.

- Customer: Wants deposit and fast service with minimal effort. Wants easily in depositing money in his account. Wants proof of purchase to support returns.

- Bank Manager: Wants to accurately record transactions and satisfy customer interests. Wants to ensure that Payment Authorization Service payment receivables are recorded.

- Maintenance: Wants to be able to quickly perform override operations, and easily debug Cashier problems.

- Deposit Authorization Service: Wants to receive digital authorization requests in the correct format and protocol. Wants to accurately account for their payables to the store.

**Preconditions:** User must have property which he can deposit as a security to get loan.

**Success Guarantee**: Apply for loan. Select plan. Bank check the man balance. The loan is granted.

**Main Success Scenario:**

1. Customer arrives at bank for loan.

2. loan officer gives him loan plans.

3. details of the one is search by bank.

4. loan is approved by the manager

5. Cashier repeats counting deposited money 1-2 until it is verify.

6. System presents total with taxes calculated.

7. Cashier tells Customer the total, and asks for deposit.

8. Customer deposits and System handles the process. Receipt.

5. Customer leaves with receipt (if any).

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