Software Requirements Specification

Version 3.0

8th March, 2016

Financial Grant Management System

Submitted in partial fulfillment
Of the requirements of
CS 223 Software Engineering

This work is based upon the submissions of the course Software Engineering (CS223). The students who submitted this team projects were :

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- Rinku Kumar Meena – B14CS027

Version 1.0 : Basic idea about our software.

Version 2.0 : Some changes have been made.

(i) Another user – MIDWARE is added to reduce the workload of Admin.

(ii) A service book database will also be maintained to realize how much time is taken by the midware to deal with the application.

Version 3.0 : Final SRS of Financial Grant Management System.

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<< Grants allotted to faculties, PhD / M.Tech scholars & project fellowers >>

<< Exact data not in access >>

<< Will be assumed for practical execution >>

1.0. Introduction

1.1. Purpose

The purpose of this document is to present a detailed description of the Financial Grant Management System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system.

1.2. Scope of Project

This software system will be a Financial Grant Management System for an organization, which allots some grants for institute members. The software will allow the applicant to apply for grant application, which would otherwise have to be performed manually. This system will be designed to maximize the admin's productivity by providing tools to analyze & update database, By maximizing the admin's work efficiency and production the system will meet the admin's needs while remaining easy to understand and use. More specifically, this system is designed to notify admin about new applications. The system also contains a relational database containing a list of Applicants, status of their grants & required information.

1.3 Constraints

- Implemented for a particular institute.
- No registration for Admin.

1.4 Assumptions and Dependencies

- Exact amount of grants are not known, so grants amounting to Rs 10,000 are accepted only.
- We are only handling cases of Applicant, Midware & Admin.
- Uploaded bills will be verified manually by Admin.
- Only limited grants will be considered, Travel & Medical.
- All the users are valid and part of the organization.
- Database of users has been created by Register use case only.
- Enough amount for grants.
- User is not making a fake entry in registration.

1.3. Glossary

Term	Definition
Admin	User on administration side
Applicant	User who applies for grant
Database	Collection of all the information monitored by this system.
Grant	A sum of money given by a government or other organization for a particular purpose.
Software Requirements Specification	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.
Stakeholder	Any person with an interest in the project who is not a developer.
User	Admin or Applicant or Midware
Midware	Guide above the Applicants

1.4. References

- IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications.* IEEE Computer Society, 1998.
- *www.cse.msu.edu/~chengb/RE-491/Papers/**SRSExample**-webapp.**doc**.*
- http://172.16.100.118/moodle/pluginfile.php/1365/mod_forum/attachment/141/SRS_Template.docx.

1.5. Overview of Document

The rest of the document is designed in the following way:

2.0. Overall Description

2.1 System Environment

2.2 Functional Requirements Specification

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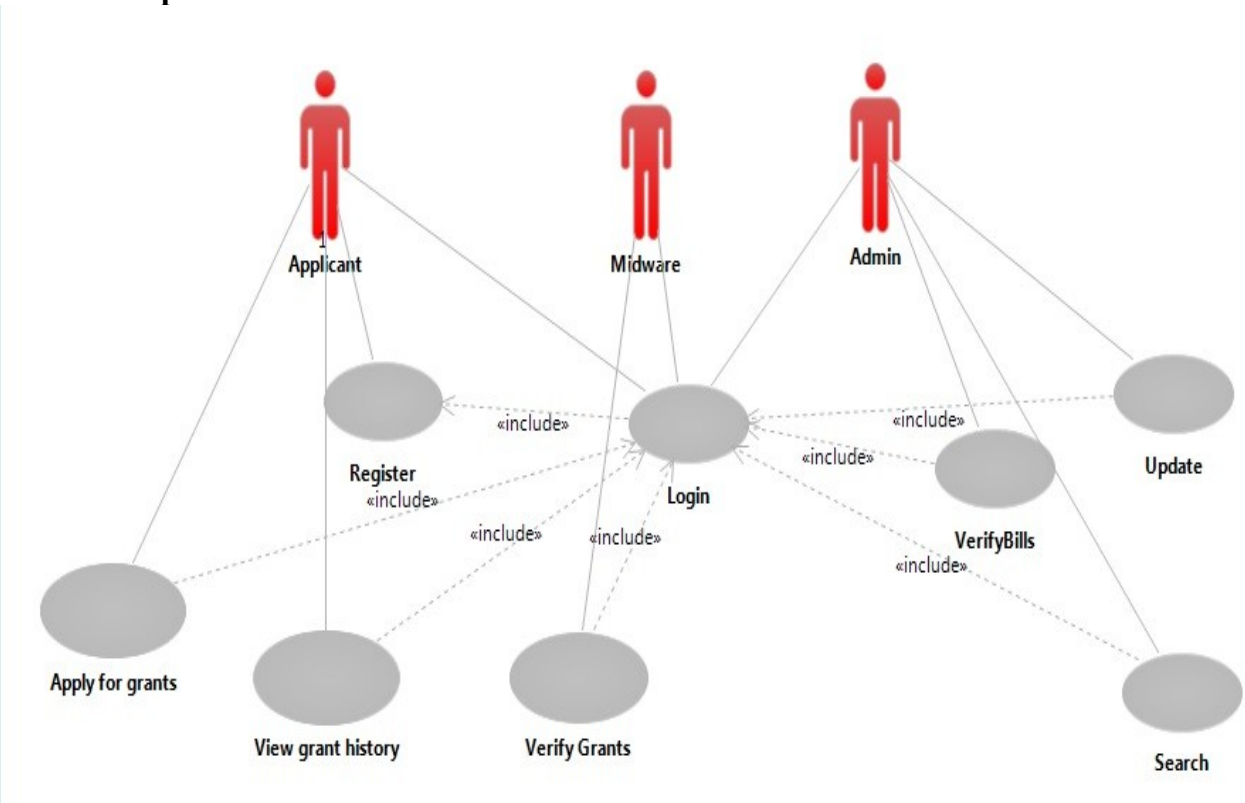
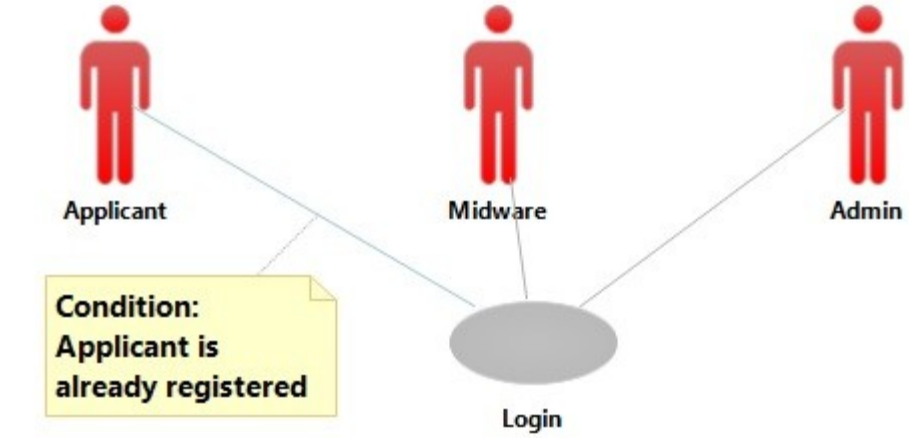
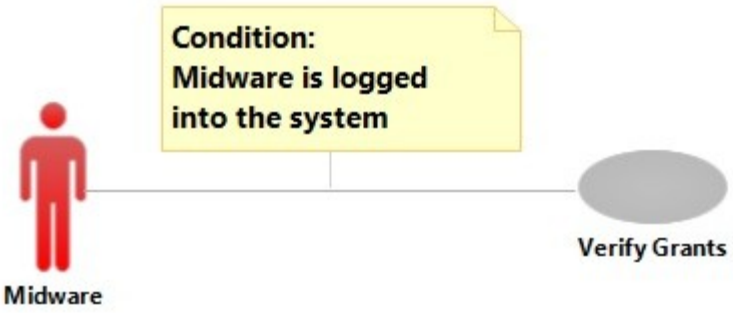
2.2.1 **Complete Use case**

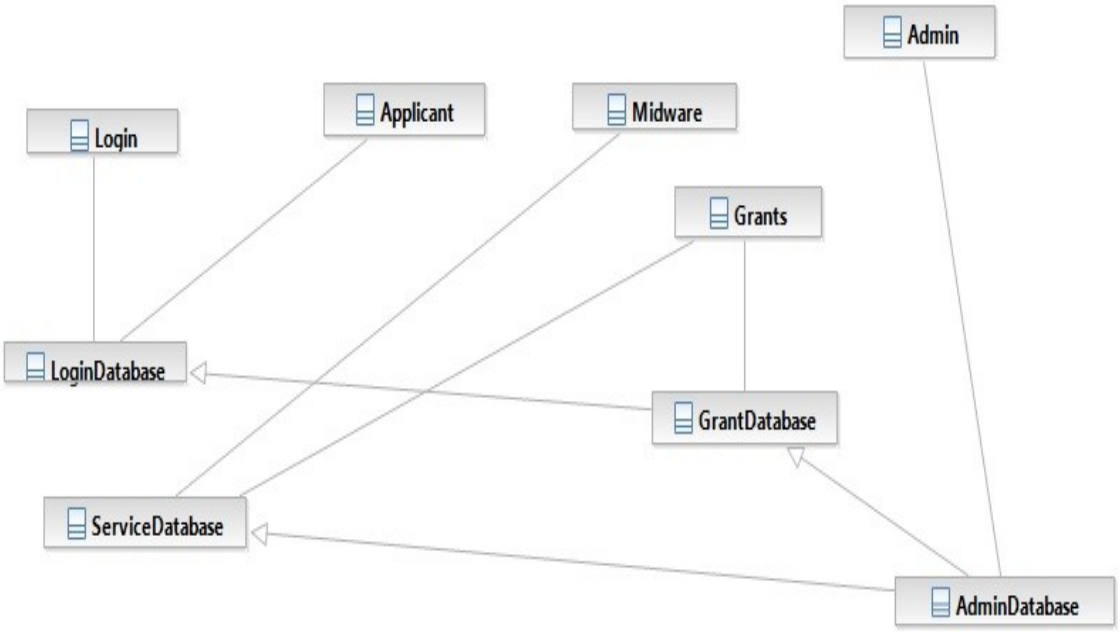


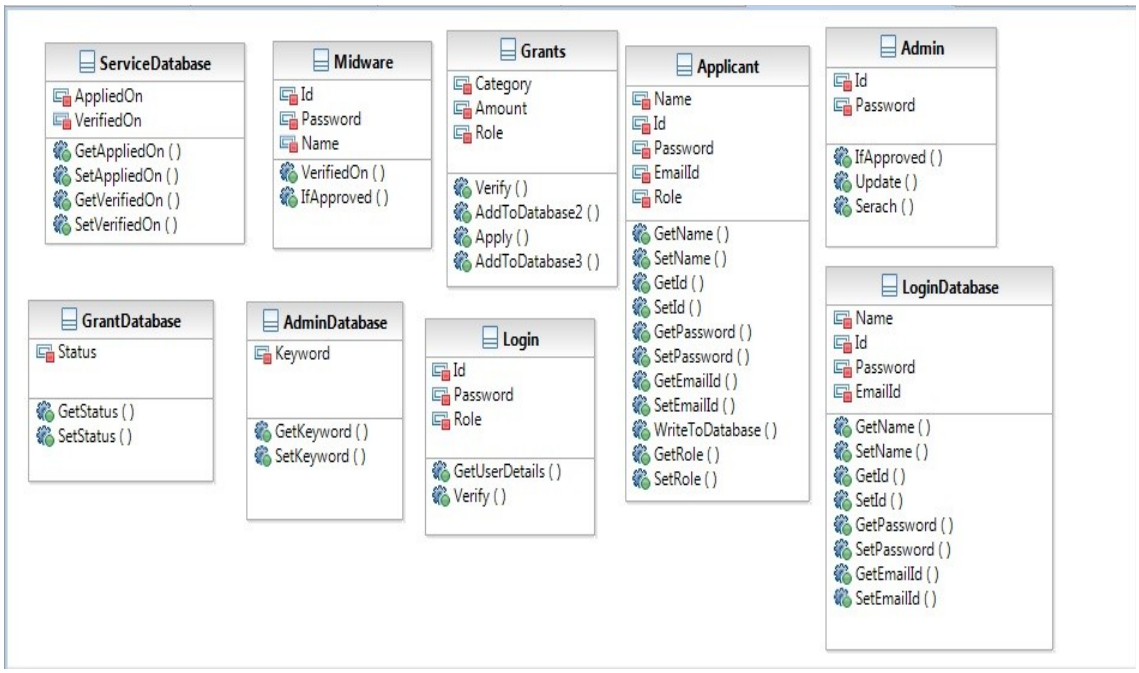
Use case:
Diagram:


Applicant
Midware
Admin
Condition:
Applicant is
already registered
Login


Condition:
Midware is logged
into the system
Midware
Verify Grants

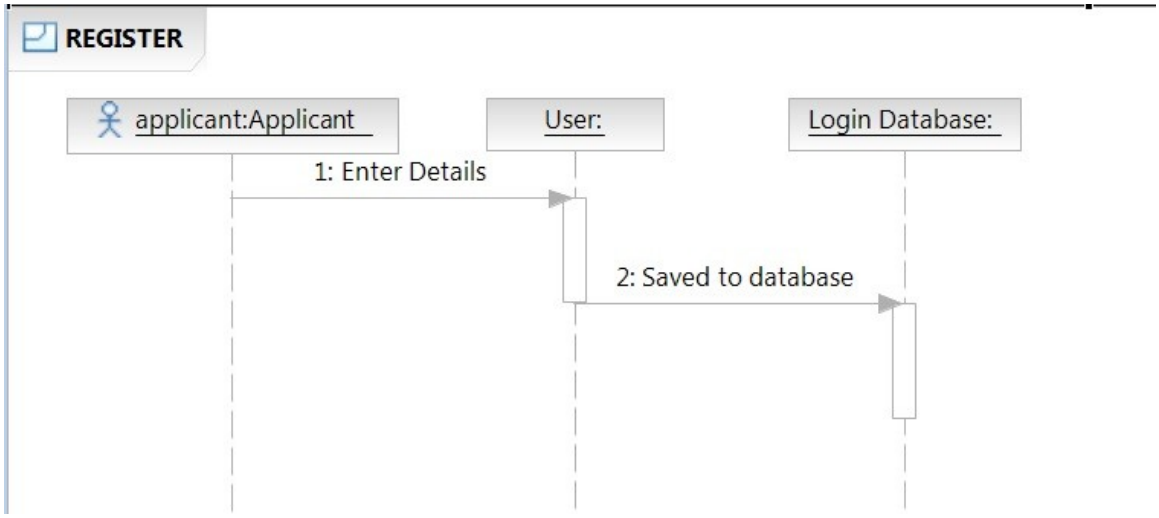
Brief Description: Class Diagrams



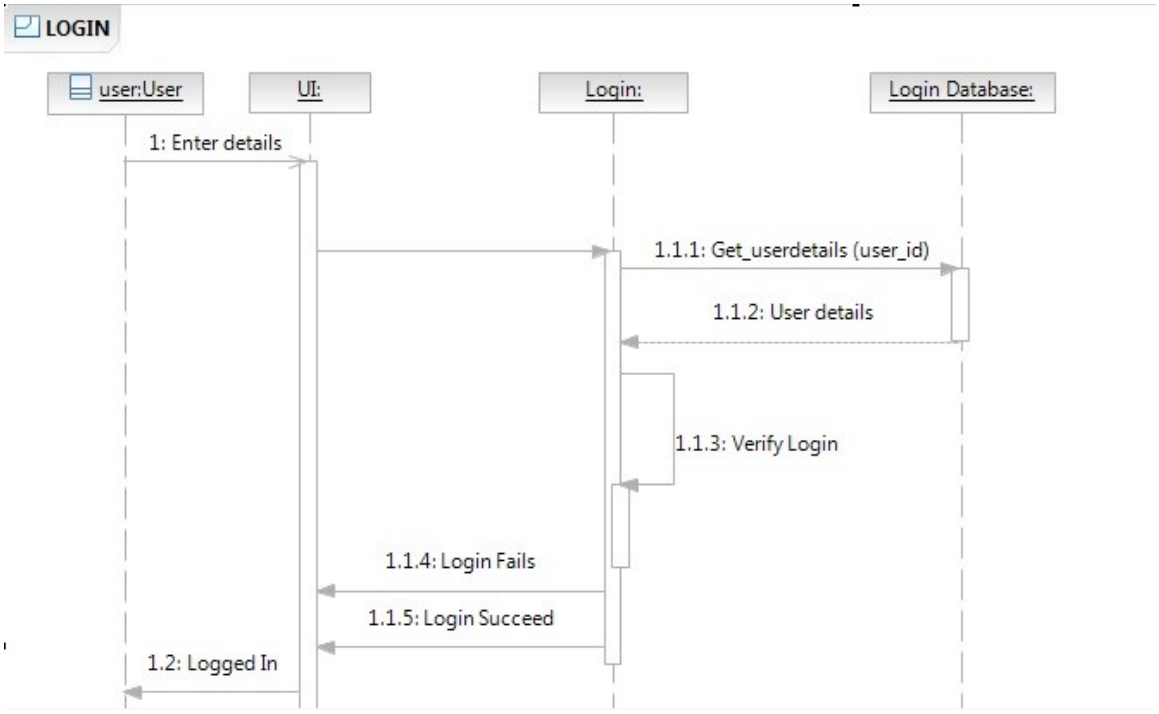


Brief Description: Sequence Diagrams

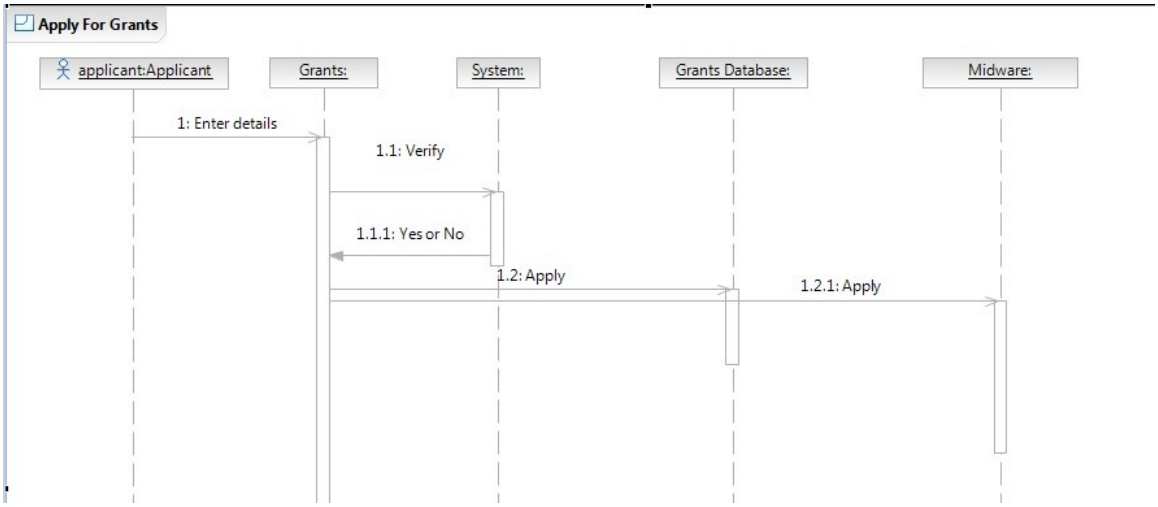
1. **REGISTER**



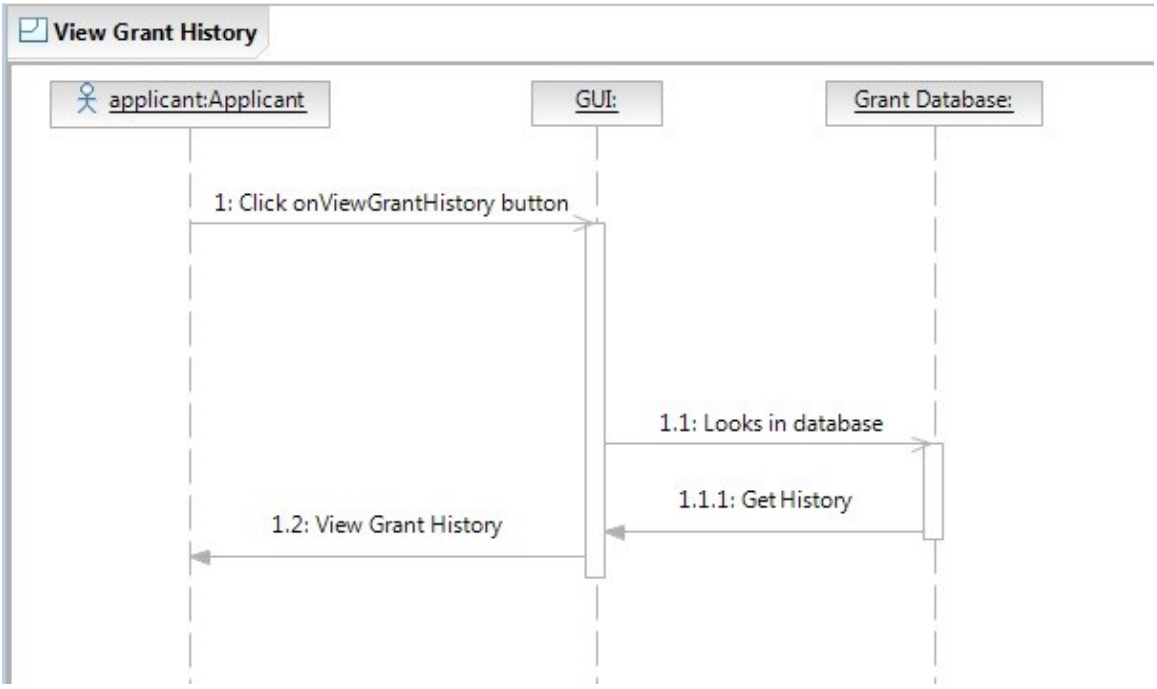
2. **LOGIN**



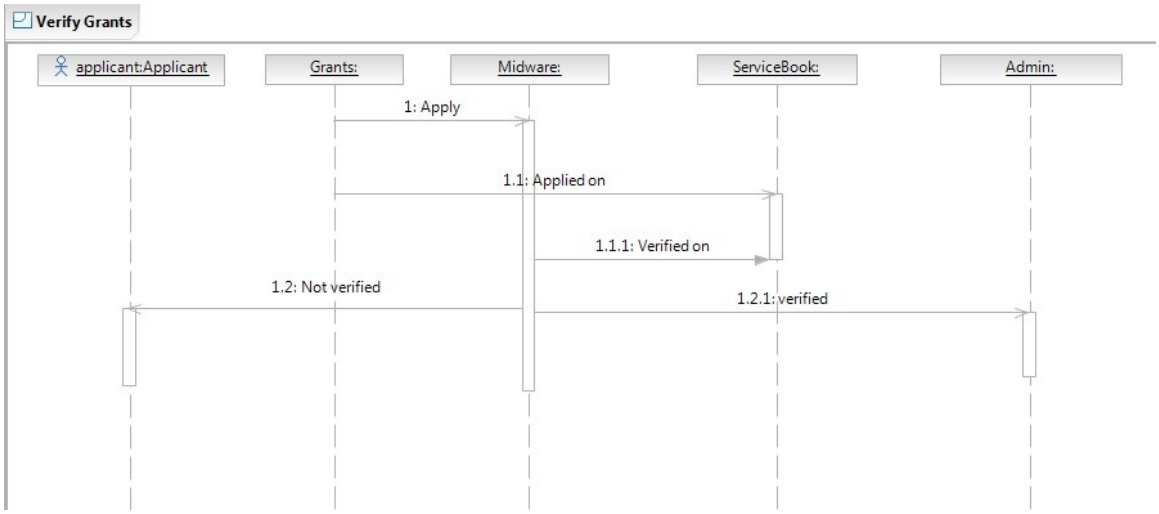
3. Apply For Grants



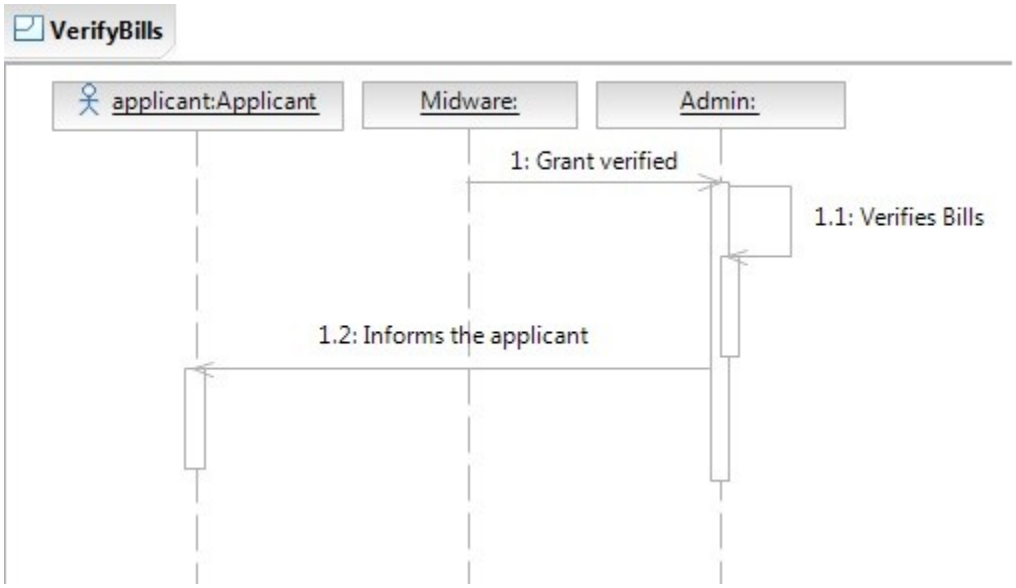
4. View Grant History



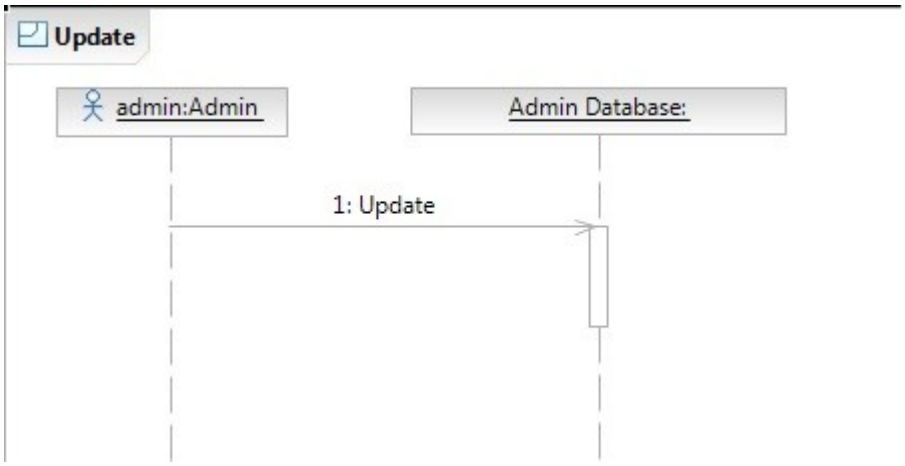
5. Verify Grants



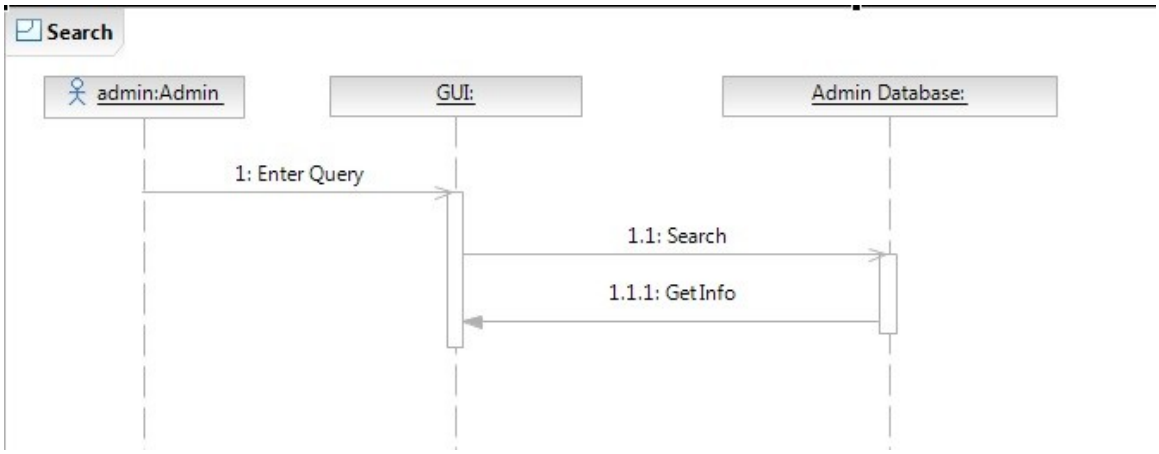
6. Verify Bills



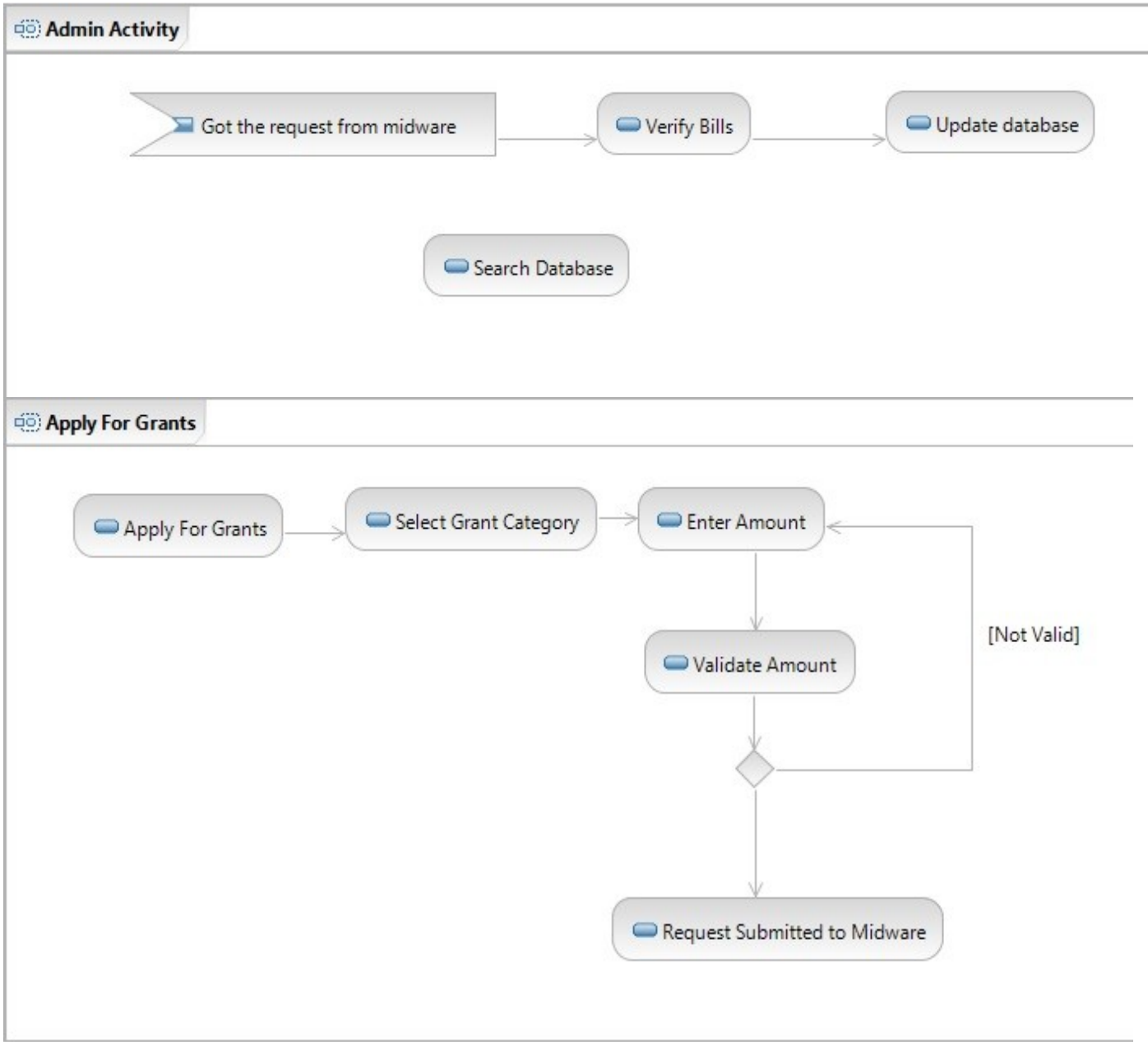
7. Update

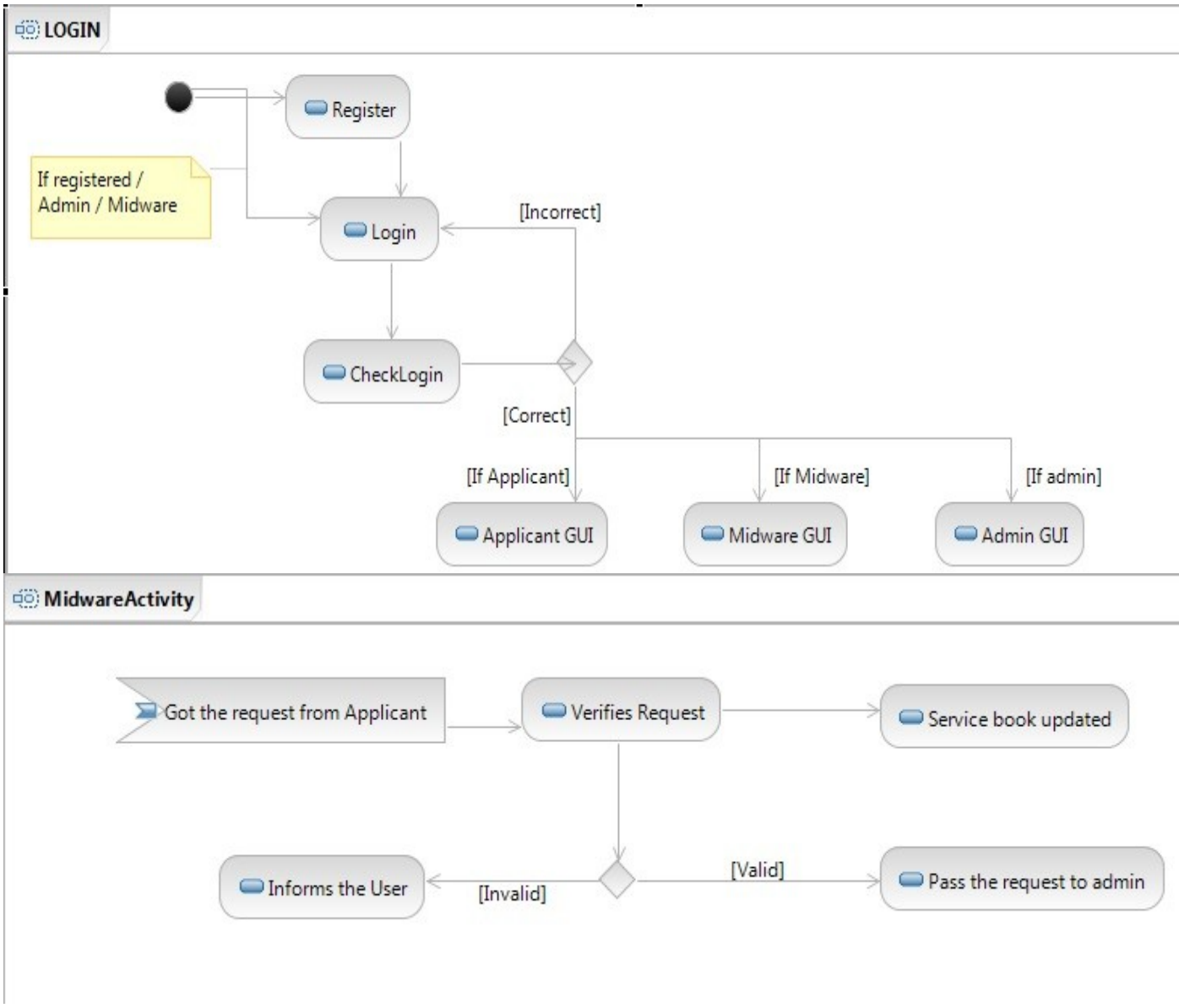


8. Search



ACTIVITY Diagrams:





2.3 User Characteristics

No pre-requisite Software Skills is required.

2.4 Non-Functional Requirements

3.0. Requirements Specification

3.1 Functional Requirements

3.1.1 Register

Use Case Name	Register
Trigger	User wants to be a part of system
Precondition	User must belongs to institute
Basic Path	1. Click Register option 2. Enter details: User Id – Roll No. Email Id – provided by college (@ and . are manadatory) Phone No.- 10 digit numeric. 3. Create password Password – No constraints. 4. Submit
Alternative Paths	4`. Incorrect details 5`. Ask again
Postcondition	Successfully registered
Exception Paths	N/A
Other	N/A

3.1.2 Login

Use Case Name	Login
Trigger	User wants to log in to system
Precondition	User must be registered into the system .
Basic Path	1. Enter username & password 2. Click login
Alternative Paths	2`. Invalid credentials. 3`. Ask again.
Post condition	Successfully logged in to the system
Exception Paths	N/A
Other	Applicant & Admin gets separate UI after login

3.1.3 Apply for Grants

Use Case Name	Apply for grants
Trigger	User requires a grant
Precondition	User is logged into the system.
Basic Path	(1) User selects appropriate grant. (i) Travel (ii) Medical (2) User enters details of grant. Amount : Greater than zero & Less than 10,000 Details: Reason & description of grant (3) User applies for grant.
Alternative Paths	(2`) Enters invalid details. (3`) Shows error.
Post condition	Grant successfully applied.
Exception Paths	User may logout anytime.
Other	N/A

3.1.4 View Grant History

Use Case Name	View Grant History
Trigger	User wants to view his/her previous grants.
Precondition	User is logged into the system.
Basic Path	(1) Clicks History button
Alternative Paths	N/A
Post condition	History will be shown. Status of application will be visible.
Exception Paths	User may logout anytime.
Other	Grants status can be checked as : (i) Pending (ii) Midware Approved (iii) Midware Disapproved (iv) Admin Approved (v) Admin Disapproved

3.1.5 Verify

Use Case Name	Verify
Trigger	Admin needs to verify applications
Precondition	Admin must be logged into the system
Basic Path	(1) Admin gets notifications about new application (2) Checks the application. (3) Approves the grant.
Alternative Paths	(2`) Application is invalid. (3`) Disapprove/Skip the grant.
Post condition	Application status will be updated.
Exception Paths	Admin may logout anytime.
Other	N/A

3.1.6 Update

Use Case Name	Update
Trigger	To maintain an updated record
Precondition	Admin is logged into the system.
Basic Path	(1) Admin verifies the application (2) Database gets updated
Alternative Paths	N/A
Post condition	Database updated.
Exception Paths	Admin may logout anytime.
Other	N/A

3.1.7 Search

Use Case Name	Search
Trigger	Admin wants to access any details about financial grants.
Precondition	Admin is logged into the system.
Basic Path	(1) Click Search button. (2) Select category- Name, Id, Email, Type, Amount, Applied On, Verified On. (3) Enter respective keywords. (4) Enter search
Alternative Paths	(4`) Keyword not found (5`) Ask again
Post condition	Details found.
Exception Paths	Admin may logout anytime.
Other	N/A

3.1.8 Midware Verification

Use Case Name	Midware Verification
Trigger	N/A
Precondition	Midware must be logged in.
Basic Path	(1) Verifies the request. (2) Respond accordingly.
Alternative Paths	(2`) Skip : Application will be served next time Midware logs in.
Post condition	Request verified.
Exception Paths	Admin may logout anytime.
Other	Midware has to respond in 5 working days.

3.3 Detailed Non-Functional Requirements

3.4 Logical Structure of the Data

<< Keep this blank for the time being>>

4.0 Supporting information

4.1 Table of contents and index

4.2 Appendixes