Date : / /
Page No. 1

BCS0-51

Ans: 1. Introduction

With the increase in the number of readers, better management of System is required the library management System focuses on improving the management of library in a city or town, "What if you Can Check whether a book is available in the library through you Phone? Or What if instead of having different library Cards for different libraries You Can just have one.

1.1 Purpose

The Purpose of the Project is maintain the details of books and library members of different libraries. The main Purpose of this Project is to maintain a easy circulation System between Clints and the libraries to issue book using Single library Card, also to Search and reserve and Book from different available libraries and to maintain details about the user.

1.2 Scope

- Manully updating the library system into an Android based application so that the user can know the details of the book available and maximum limit on browsing from their computer and also through their Phones.
- The LLM System provides informations like detail of the book, insertion of new book deletion of lost book limitation on issuing books.
- Also user can provide feedback for adding some new books to the library.

1.3 Definition, Acronyms, Abbreviation.

- Java - Platform independence
- SQL - Structured query language
- DFD - Data flow diagram
- CFD - Context flow Diagram
- ER - Entity Relationship
- IDE - integrated development environment
- SRS - Software requirement specification.

2. OVERALL DESCRIPTION

2.1 Product Prespective

The Proposed library management System will take Care of the current book detail at any Point of time the book issue, book written will update the current book detail automatically so that user will get the update current book detail.

2.2 Software Requirement.

- Front end
  - Android developer tool
  - Advance java
- Back end:
  - mySQL

2.3 Hardware Are requirement

- Android version 2.3 Gyinger bread (minimum, Android user
- 2 GB Ram
- 1.2 Ghz Processor
- Intel i5
- Windows 7/8/8.1/10

2.4.1 Functional Requirement

- R.1 : Register

- Description:- First the user will have to register / sign up. there are two different type of users.

- The library manage / head:- The manager have to Provide details about the name of library, address, Phone number, email ID.

- Regular Person / student : the user have to Provide detail about his/her name of address, Phone number, email ID.

R. 1.1 : Sign up.

- Input : Detail about the user as mentioned in the description.
- output : Confirmation of registration status and a membership number and Password will be generated and mailed to the user.
- Processing :- all details will be Checked and if any error are found then an error message is displayed else a membership number and Password will be generated.

R 1.2 login
- Input :- enter the membership number and Password Provided.
- Output user will be able to use the features of Software.

R.2. Manage books by user.

R.2.1 : Book issued
- Description list of books will be displayed along with date of return.

R.2.2 Search
- Input : enter the name of author's name of the book to be issued.
- output :- list of book related to the keyword.

R. 2.3 Issues Book
- State = Searched the book user want to issue.
- Input - Click the book user wants.
- Output - Confirmation for book issue and apology for failure in issue.

- Processing : if selected book is available then book will be issued else error will be displayed.

R.2.4 : Renew book

- State : book is issued and is about to reach the date of return
- input :- Select the book to be renewed.
- output : Confirmation message.
- Processing : if there is book is already reserved by another user then error message will be be send and if not then confirmation message will be displayed.

R.2.5 : Return

- Input : Return the book to the bi library.
- output : The issued list will be updated and the returned book will be listed out.

R. 2.6 :- Reserve book

- Input : Enter the details of the book.
- Output : book successfully reserved.
- Description : if a book is issued by someone then the user can Reserve it so that later the user can issue it.

R.2.7 Fine

- Input :- Check for the fines.
- Output :- details : about fines on different books issued by the user.
- Processing : the fine will be calculated if it crossed the date of Britain and the user is not sure it's then fine will be applied by Rs 10 per day.

R.3 Manage books by librarian

R.3.1 update details of books

R 3.1.1 Add books

- Input : enter the details of the book such as names, author, edition, quantity.
- Outputput :- Confirmation of addition.

R.3.1.2 Remove books

- Input : enter the name of the book and quantity of books
- Output :- update the list of the books available

2.4.2 Non Functional Requirements

Usability Requirement

The System shall allow the users to accept the System from the Phone using Android application. The System uses a Android application as an interface.

- Availability Requirement.

The System is available 100% for the user and is used 24 hours a day and 365 days in a year

- Efficiency Requirement

Mean time to repair (MTTR) - Even if the System will be recovered back up within an hour or less.

- Accuracy

The System should accurately Provide real time information taking into consideration various Concurrency issues.

- Performance Requirement

The information is refreshed depending upon whether some updates have occcured or not in the application.

- Reliability Requirement

The System has to be so Percent reliable due to the importance of data and the damages that can be caused by incorrect or incomplete data the System will run 7 days a week 24 hours a days.

- 2.5 User Characteristic

We have 3 level of users.

- User Module : in the user module user will check the availability of the books.
  - Issue Book
  - Reserve Book
  - Written book
  - Fine detail
- Library Module.
  - Add new book
  - Remove books
  - Update detail of books
- Administration module:

The following are the sub Module in the administration module.

- Register user
- Entry book details
- Book issue

2.6 Constraints

Any update regarding the books from the library is to be included to have update and correct value, and any find on a

on a member should be notified as soon as possible and should be correctly calculated.

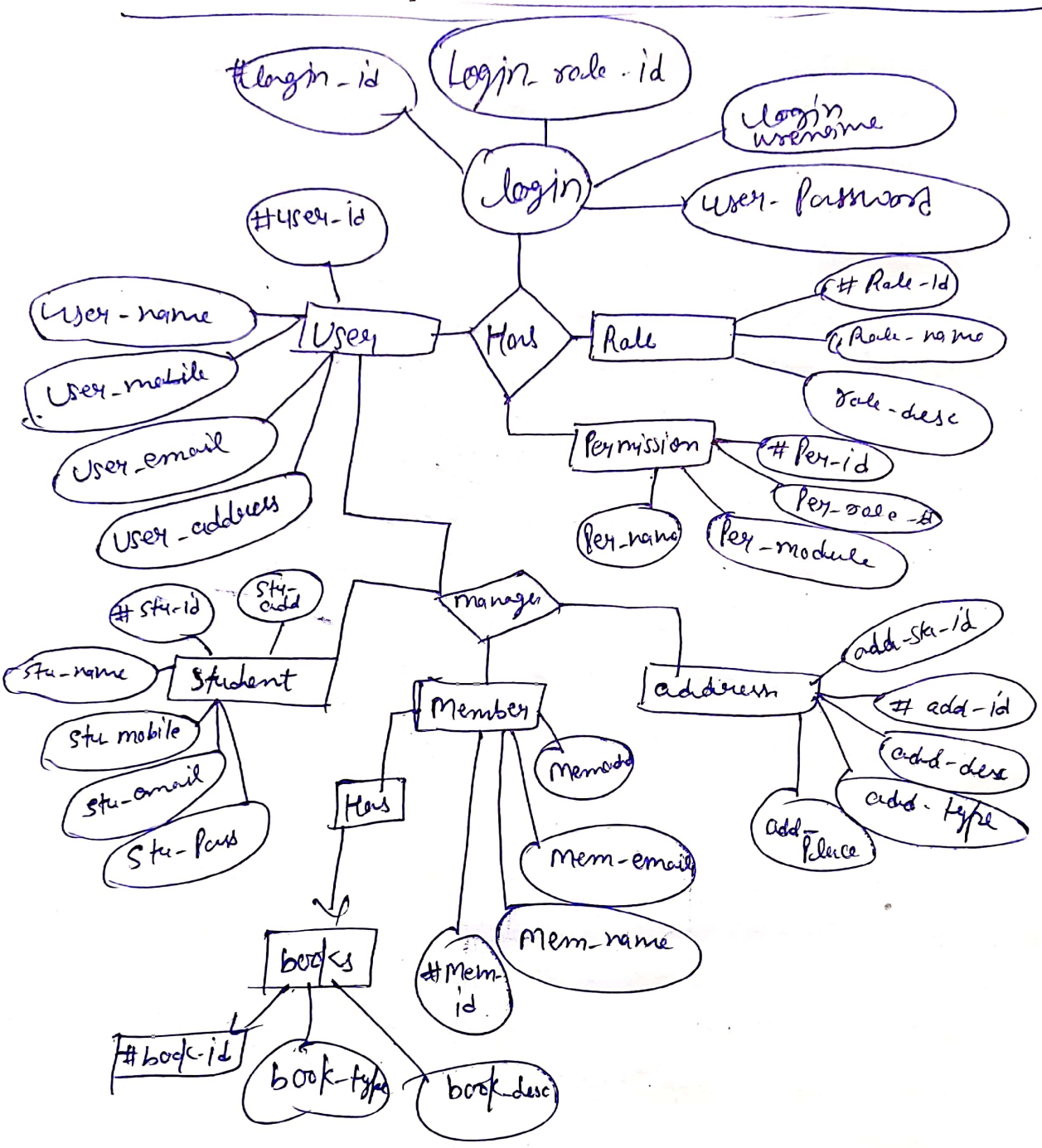
Ans 2 = ER Diagram - Entity Relationship Diagram, also know as ERD, ER Diagram or ER model, is a type of structural diagram for use in database design. An ERD contains different symbols and connectes that visualize two important information. The major entities within the system scope and the inter-relationship among these entities.

Notations for the components of ERD:-

Entities: An entity is something about which the business needs to store data. An entity is a class of persons, places, objects, events or concepts about which we need to capture and store data.

Attribute: An attribute is a descriptive property or characteristic of an entity.

ER Diagram of Library Management System



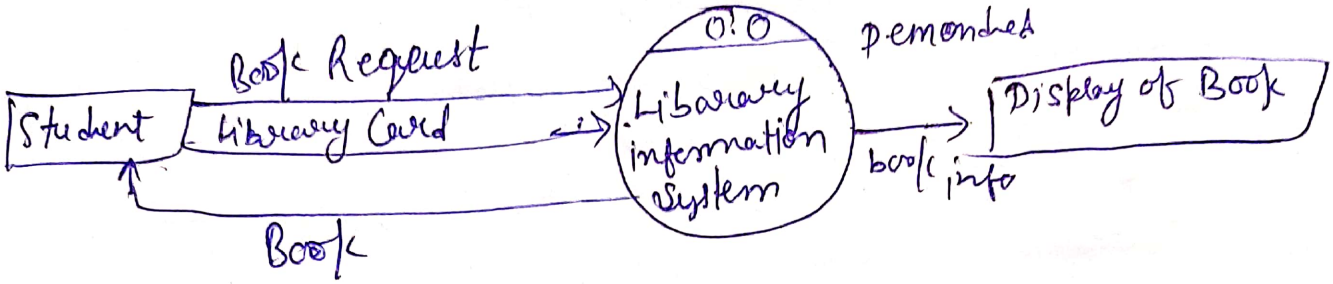
Date : / /
Page No. 12

Relationships :- A relationship is a natural business association that exists between one or more entities. The relationship may represent an event links the entities.

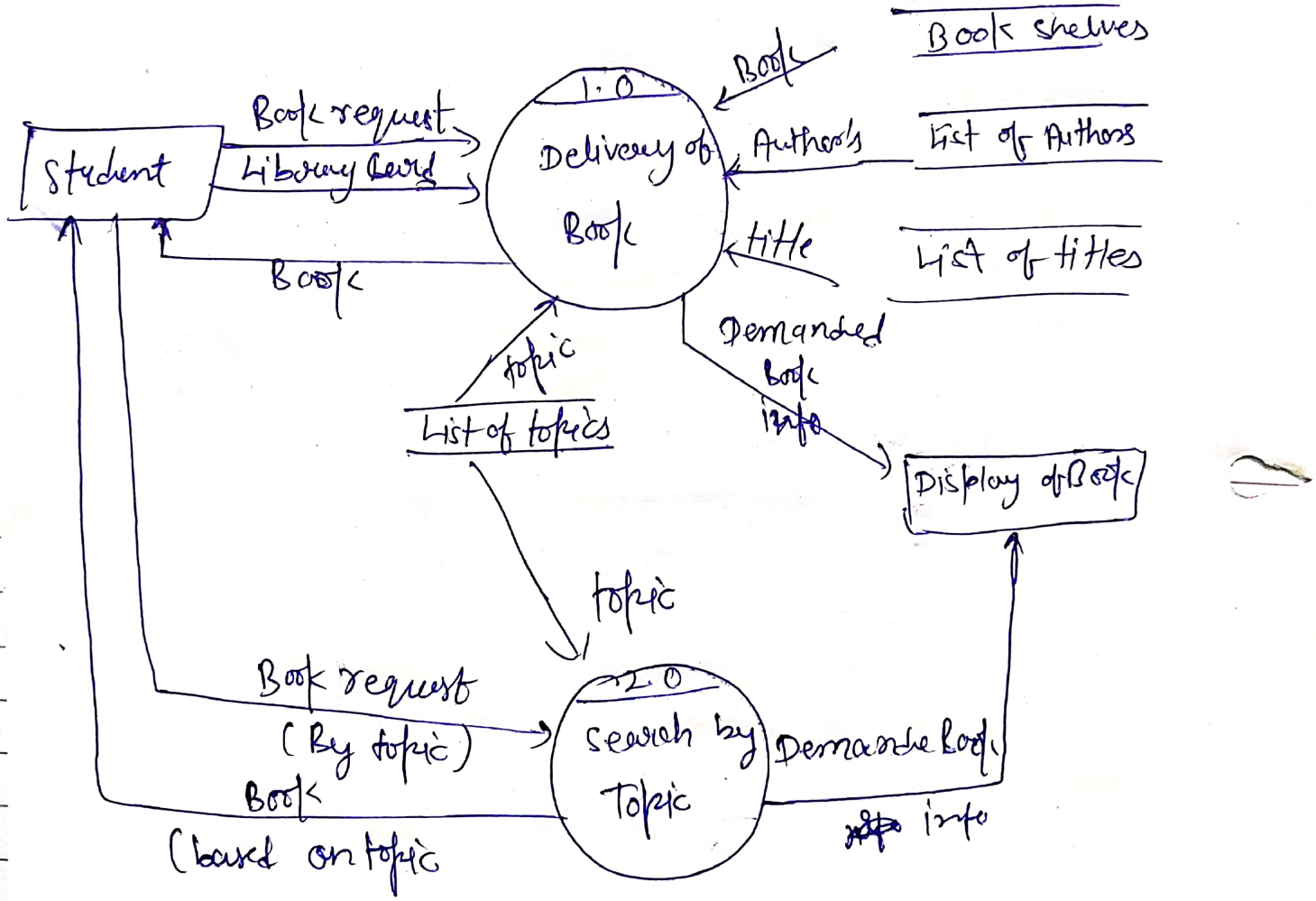
Cardinality : Defines the minimum and maximum number of occurrences of one entity that may be related to a single occurrence of the other entity.

Data flow Diagram of Library Management System (DFD)

0-Leler DFD.



1-LEVEL DFD



Date : / /
Page No. 13

Ans 3:

What is Change Management?

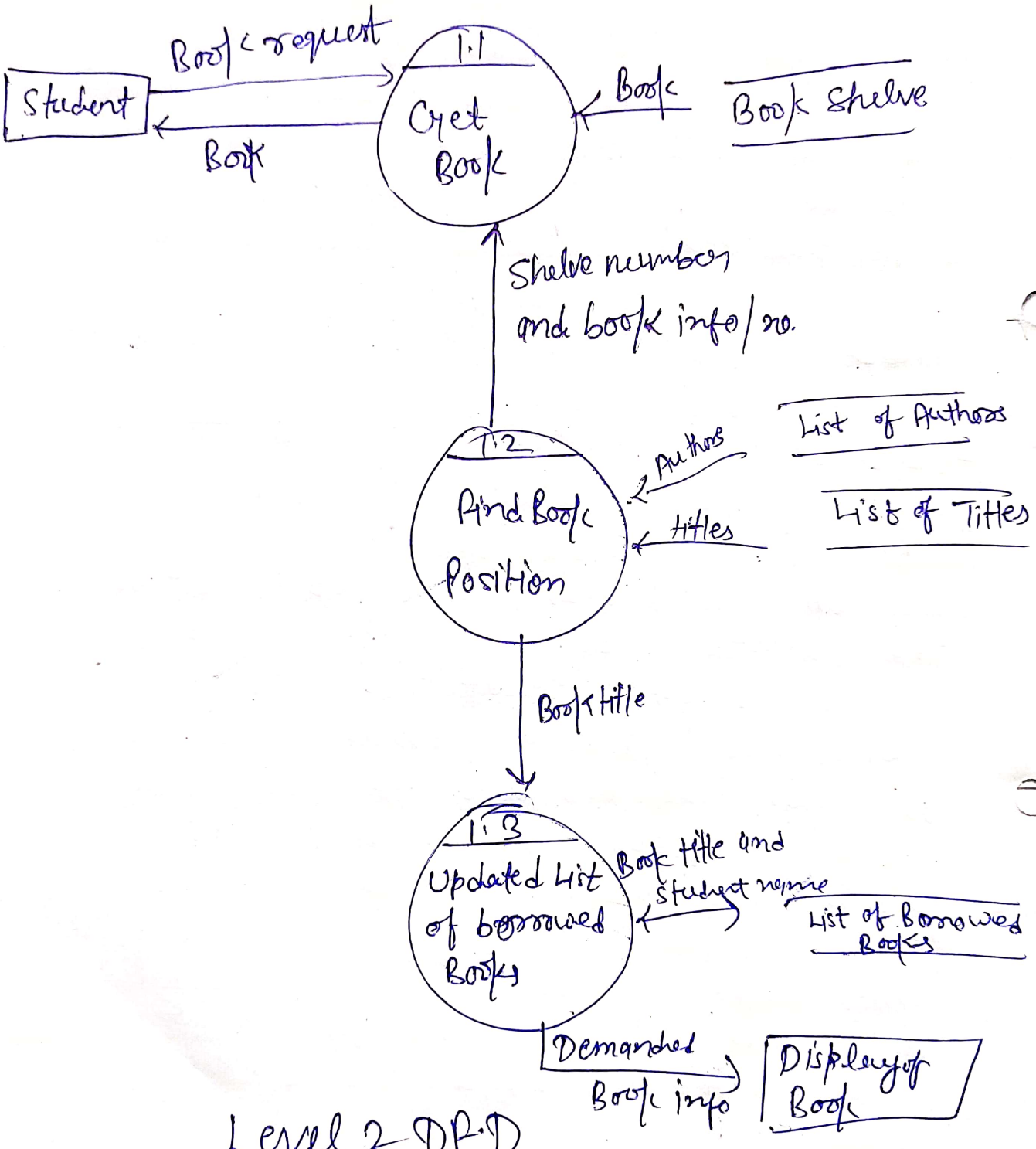
Change management is the discipline that guides how we prepare, equip and support individuals to succefully adopt change in order to drive Organizational Success and Outcome.

Three levels of Change Mangement

- Individual Change Management

While it is the natural psychological reaction of human to while it is the natural ~~B~~. We are actually quite resilient creatures. When supported through times of change. We can be wonderfully adaptive and successful. Individual Change management required understanding how people experience change and what they need to change successfully. It also requires knowing that will help people make a successful transition.

2- level DFD



Level 2 DFD

Organizational / Initiative Change Management

While change happens at the individual level, it is often impossible for a project team to mange change on a person-by-person basis. Organizational or initiative change management provides us with the steps and action to take at the project level to support the hundreds or thousands of individuals who are impacted by a project.

- **Enterprise Change Management Capability**

Enterprise change management is an organization core competency that provides competivie differentiation and the abidity to effectively adapt to the ever-changing wald. An enterprise change management capabiity means effective change management is embedded into your organization's roles, structures, processes, projects and leadership competencies.

Date : / /
Page No. 15

Changing requirements for a Software to be developed:

Hardly would any Software development project be completed without some changes being asked of the project. The changes can stem from changes in environment in which the finished product is envisaged to be used, business changes, regulation changes, error in the original definition of requirements, limitations in technology, changes in the security environment and so on. The activities of requirement change management include receiving the change requests from the stakeholders, recording the received change requests, analyzing and determining the desirability and procedure of implementation implement of the change request, quality assurance for the implementation of change request, quality assurance for the implementation and closing the change request.