

LAB REPORT

Submitted by

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Under the Guidance of

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In partial satisfaction of the requirements for the degree of

BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE ENGINEERING



SCHOOL OF COMPUTING
COLLEGE OF ENGINEERING AND TECHNOLOGY
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
KATTANKULATHUR - 603203

JUNE 2022



SRM INSTITUTION OF SCIENCE AND TECHNOLOGY KATTANKULATHUR-603203

BONAFIDE CERTIFICATE

Certified that this lab report titled **UNWIND** is the bonafide work done by **Poorvi Mittal (RA2011003010361)** who carried out the lab exercises under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other work.

SIGNATURE

Dr. J. Rene Beulah
SEPM – Course Faculty
Assistant Professor, Department of Computing Technologies

ABSTRACT

Over the years, mental health has been completely not taken into consideration which eventually turns into suicide cases and high degree depression. Overcoming this problem is the main focus of this project. The goal of this project is to design and develop a system which can be the bridge between the ones who need mental help and the psychiatrists(shrinks). It also focuses on booking appointments and conducting virtual meets with the therapist. Another module is to give users the options to get the help of various different mental health related issues and the therapists they want to select. The required system is amiable to users because they can get the mental help without any hesitation. After implementation of the objective modules, all functions were tested and are successful.

Youth is the backbone of any country therefore their proper mindset and headspace is required for the betterment of our country. UNWIND makes sure that there are solutions to each and every problem related to mental health and the shrinks listed are also having good personality and reviews. This software also allows the users to anonymously chat among themselves and discuss their day-to-day problems.

The combination of these modules into one software/website assures the perfect platform for getting the mental help seekers right help and therapy. This system brings about an easy way of directly getting in touch with the shrinks and vice versa. It is simple to understand and can be used by anyone who is not even familiar with websites. It is user friendly and just asks the user to follow step by step operations by giving easy to follow options.

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LIST OF ABBREVIATIONS

UML- Unified Modeling Language

EMS-Employee Management System

HR-Human Resource

HOD-Head of Department

WBS-Work Breakdown Structure

HTML-Hypertext Markup Language

CSS-Cascading Style Sheet

XML-Extensible Markup Language

MTTR-Mean Time to Repair

CAPTCHA-Completely Automated Public Turing test to tell Computers and Humans Apart

ID-Identity Document

UI-User Interface

IDE-Integrated Development Environment

UX-User Experience

API-Application Programming Interface

DB-Database

QR code-Quick Response code

DDOS-Distributed Denial of Service

SWOT-Strength Weakness Opportunities Threats

ER-Entity Relationship

DFD-Data Flow Diagram

QA-Quality Assurance





Department of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1
Title of Experiment	To identify the Software Project, Create Business Case, Arrive at a Problem Statement
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	RA2011003010361 RA2011003010373 RA2011003010369
Date of Experiment	15/3/2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	

2	Viva	5	
	Total	10	

Staff Signature with date

Aim

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for the <title of the project> **Team Members:**

S. No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Lead/Rep
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

Project Title: UNWIND Project

Description:

UNWIND is a website which creates a medium between psychiatrists and users who need mental help. Just like Amazon does with buyers and sellers, we bring the psychiatrists from different parts and help them connect with our users. We also provide many different features. One of our unique features is anonymous chatting options where two users can discuss their problems without actually knowing each

other's identity. Below attached is our **Business case template.**

BUSINESS CASE TEMPLATE

DATE	March 15, 2022
SUBMITTED BY	Harsh, Zeal, Poorvi
TITLE / ROLE	Unwind/Helping shrinks connect with clients



PROJECT

Aims to solve or the opportunity it aims to develop:

- The project's goal is to establish a contact between psychiatrists(shrinks) and individuals seeking counseling or other mental health guidance.
- We want to provide a safe place for them to connect with one another while still allowing them to keep their identities private so that no one is afraid to seek help when it is needed.
- We aim to be the mediator between shrinks and people who need to resolve some personal issues and attain mental peace just like amazon does it with buyers and sellers.

HISTORY

Current situation:

- Even though we are in the year 2022, our attitude toward mental health issues is still 100 years old.
- India has one of the highest rates of mental disorders in the world. Over 14% of India's population, according to the National Mental Health Survey of 2016, need active mental health interventions.
- This corresponds to about 18.543 crore people who suffer in silence rather than voicing out the need for medical help since it is still considered taboo to speak out about their pain.
- People want to share their personal things but aren't able to due to privacy issues and not knowing whom to share with
- In this busy world, people need sources like us to help them out to speak about their problems and their mental health.

LIMITATIONS

- The most major problem or limitation that we may have in completing this endeavor, according to our research, is that we, as individuals, are still oblivious of medical health difficulties.
- The individual who is ill is unable to recognise that he or she is afflicted with a medical condition that necessitates therapy.
- The second issue we may face is that we are not yet ready to admit we have a problem, much less ask for assistance.
- People may be wary of disclosing personal information to a third party.

APPROACH

What is needed to complete the project:

- The goal of this project's development is to make the user interface as userfriendly as feasible. We want to instill a strong sense of trust in our clients and make them feel as if this is their safe area.
- We will be making a website where our clients(the ones seeking mental help) to login and select the shrinks of their choice to take help
- There will be plethora options of shrinks listed on our website to help us out
- We will be creating a medium of online interaction with the shrinks for our users. Features like voice chat, text chat and video call will be added
- We will be adding a feature of anonymous chatting where our two website users can share their things and chat with each other anonymously.
- For more, we are looking to add podcasts and live/recorded sessions of the speakers and mental health facilitators.

BENEFITS

Benefits that this project will bring to the organization:

1. Financial benefit: We will be charging commission from the shrinks that will be listed on our website. Our users will be directly paying them the fees.
2. Social advantage: This software will benefit society by tackling the most perplexing and disturbing taboos that must be eliminated.
3. Premium Membership:
 - We are thinking of charging a modest subscription fee in order to provide some premium services, such as organizing self-help groups where people with diverse difficulties may talk to each other and benefit themselves and others via their talks.
 - We will be changing monthly fee plans if the users are liking our services, they will buy this plan and then can explore any of the services free of cost. They don't even need to pay for the shrinks.
4. Anonymous identities : The program's success is founded on its most significant feature, which provides the user with anonymity so that they may make decisions about their identity.

Result

Thus, the project team formed, the project is described, the business case was prepared and the problem statement was arrived.



Department of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	2
Title of Experiment	Identification of Process Methodology and Stakeholder Description
Name of the candidate	POORVI MITTAL
Team Members	POORVI MITTAL(RA2011003010361) ZEAL SHAH (RA2011003010369) HARSH KELAWALA (RA2011003010373)
Register Number	RA2011003010361

Date of Experiment	22/3/22
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Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

Staff Signature with date

Aim

To identify the appropriate Process Model for the project and prepare Stakeholder and User Description.

Team Members:

Sl No	Register No	Name	Role
1	RA2011003010361	Poorvi Mittal	Leader
2	RA2011003010369	Zeal Shah	Member
3	RA2011003010373	Harsh Kelawala	Member

Project Title: UNWIND! Selection

of Methodology

- We are selecting **Agile method** for our project
- We will break down each component of the project into segments
- We will be launching our features after success of our previous project

- We have idea to first launch our basic plan of bringing shrinks and client on a same place
- After successful execution of that, we will be adding the features of online meets and chats between shrinks and clients
- As this will complete our basic project, we will be adding our lavish and unique features like anonymous chatting feature and podcasts
- Then to increase revenue we will be adding subscription plans for premium privileges
- Therefore , we believe that AGILE METHODOLOGY will be beneficial for our project so that we can breakdown project and UNWIND step by step

Incorporate information to below table regarding stakeholders of the project [Make use of below examples]

<u>Stakeholder Name</u>	<u>Activity/ Area /Phase</u>	<u>Interest</u>	<u>Influence</u>	<u>Priority (High/ Medium/ Low)</u>
Owners	Incorporation of the idea	High	High	High
Shrinks	Main source of income, 1 end users	High	High	High
Resource Manager	Bringing shrinks and managing budget	Low	High	Med
Team Members	Execution of the software	High	Low	Med

Finance Analyst	Assists about the schemes and subscription policies to get the best revenue possible	Low	Low	Low
Tech Manager	Facilitates website and solves bugs	Low	High	Med
End users	Registers on website and uses our facilities	Low	High	High

Result

Thus the Project Methodology was identified and the stakeholders were described.



Department Of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	3
Title of Experiment	System, Functional and Non-Functional Requirements of the Project
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	(RA2011003010361) (RA2011003010369) (RA2011003010373)
Date of Experiment	28/3/2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	10	

Staff Signature with date

Aim

To identify the system, functional and non-functional requirements for the project.

Team Members:

S No	Register No	Name	Role
1	(RA2011003010361)	POORVI MITTAL	Rep/Member
2	(RA2011003010373)	HARSH KELAWALA	Member
3	(RA2011003010369)	ZEAL SHAH	Member

Project Title: <UNWIND>

System Requirements:

As it is a website it is easily approachable and usable on any electronic and technology friendly device.

Functional Requirements:

1) Authentication:

Login: User can login to the website with his or her username and password.

Log out: Users can log out from the website.

Signup: User can create his or her account. All the data will be stored for future use.

2) Browsing:

Users can search for :

- ❖ Shrinks in and around the city from all the options available.
- ❖ Self help groups and committees to share their experience with.
- ❖ Choose among various options provided by the website to communicate. (Audio calls, Video calls, Text messages)

3) Anonymous Chatting:

Users can chat with other users without revealing their true identity. Thus, maintaining anonymity.

4) Premium Subscriptions:

Users will be provided with extraordinary features like :

- ❖ access to premium podcasts.
- ❖ monthly/ annual plans with discounts for counseling sessions.

Non-Functional Requirements:

1) Availability Requirements:

The system will be 100% available to the users and will be available 24/7.

2) Security Requirements:

Proper user authentication should be provided. For the anonymous chatting and counseling feature, there is a need for proper cyber security solutions to keep the data and the privacy policy of the website intact.

3) UI Requirements:

The user interface should be simple and accessible to all the age groups and communities irrespective of any religion and discrimination on the basis of any form. Our system is an online website and hence very simple for user interaction.

4) Maintainability and Portability Requirements:

Our system provides the option to add, modify and delete the data of shrinks and hence remains updated.

Result:

Thus the requirements were identified and accordingly described.



Department of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	4
Title of Experiment	Prepare Project Plan based on scope, Calculate Project effort based on resources and Job roles and responsibilities
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	(RA2011003010361) (RA2011003010396)
Date of Experiment	04/04/2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained

1	Exercise	5	
2	Viva	5	
	Total	10	

Staff Signature with date

Aim

To Prepare Project Plan based on scope, Calculate Project effort based on resources, Find Job roles and responsibilities

Team Members:

Sl No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Leader
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

1. Executive Summary

- UNWIND is a website which creates a medium between psychiatrists and users who need help regarding mental health.
- Just like Amazon does with buyers and sellers, we bring the psychiatrists from different parts and help them connect with our users.
- As people might be reluctant to physically take therapy sessions and consult someone for help, we decided to resolve this issue by bringing a technology that comes to them at their comfort zone to talk about the same with someone who understands them and is willing to help them.

- We would provide many different features , one of which is anonymous chatting options where two users can discuss their problems without actually knowing each other's identity.
- We will use the COCOMO1 Model to calculate the cost and effort required to build the project.

2. Project Management Plan

Focus Area	Details
Integration Management	The model used for this project is the Agile Model . The project will be divided into 3 parts: Two members will be working on website and technology, while the third member will be doing the documentation and helping in getting business done right.
Scope	<p>Stakeholders: Team members, developers, Management psychiatrists(shrinks).</p> <p>Project Objectives: To build a website to enable the user to meet, video call or talk to different available shrinks listed under the website.</p>
	<p>Schedule Objectives: Project is scheduled to be completed in 4 months(16 weeks)</p> <p>Constraints: Lack of experience, Lack of knowledge in the corporate world, Budget</p>
Schedule Management	<ul style="list-style-type: none"> <input type="checkbox"/> Conception & Initiation: 1 week (approx.) <input type="checkbox"/> Planning: 2 weeks (approx.) <input type="checkbox"/> Execution: 6-8 weeks (approx.) <input type="checkbox"/> Testing: 3 weeks (approx.) <input type="checkbox"/> Deployment: 2 weeks (approx.)

Cost Management	<ul style="list-style-type: none"> <input type="checkbox"/> Total Budget: Initially Bootstrap, may include funding in future stages <input type="checkbox"/> Most of the technical tasks will be done on free platforms and resources. <input type="checkbox"/> Effort: 14 hours/week distributed among all the team members.
Quality Management	<p>The website will be tested for glitches and loading time. And the search algorithm will be optimized so that the search results will be displayed in the best possible manner with least possible processing time and energy. We will try to debug every API error while using meet/zoom/around.</p>
Resource Management	<p>People: The team members will undertake the task of planning, building and documentation of the project. One member will build the front end while others will work on back end portions.</p> <p>Physical: A good database with necessary facilities will be required to store data. A good security firewall to not let access to IP of the users using anonymous chatting option.</p>
Stakeholder	<p>The stakeholders are the developers themselves , shrinks and users using the website.</p>
Communication Management	<p>In the website, users as well as the shrinks can communicate using either the inbuilt chat feature or through zoom/meets/around meetings.</p>
Risk Management	<p>Potential technical risks will be discussed in every meeting and managed accordingly and will provide security to prevent unnecessary access to the IP address of one user by the another.</p>
Procurement Management	<p>Adhering to the organization procurement process. Most of the procurement process will be online or as preferred by the user according to his/her needs.</p>

3. Estimation

3.1 Effort and Cost Estimation

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Frontend	E1R1A1T1 (Effort-Requirement-Activity-Task)	Login Page	8	5000
	E1R1A1T2	Shrinks browsing	15	12000
	E1R1A1T3	Video calling feature	12	5000
Backend	E1R1A2T1	Documentation	5	1000
Maintenance	E1R1A3T1	Maintaining the website and user privacy	3/week	2000/month
Effort (hr)	Cost (INR)			
1	500			

3.2 Infrastructure/Resource Cost [CapEx]

< OneTime Infra requirements >

Infrastructure Requirement	Qty	Cost per qty	Cost per item
IR1	3(Laptops)	50,000	1,50,000

4. Maintenance and Support Cost [OpEx]

Category	Details	Qty	Cost per qty per annum	Cost per item

People	Network, System, Middleware and DB admin Developer , Support Consultant	3	2,000,000	6,000,000
License	Operating System Database Middleware IDE	10	10000	100,000
Infrastructures	Server, Storage and Network	20	20000	400,000

5. Project Team Formation

5.1 Identification Team members

Name	Role	Responsibilities
	Key Business User (Product Owner)	Provide clear business and user requirements
	Project Manager	Manage the project
	Business Analyst	Discuss and Document Requirements
	Technical Lead	Design the end-to-end architecture
	UX Designer	Design the user experience
	Frontend Developer	Develop user interface
	Backend Developer	Design, Develop and Unit Test Services/API/DB
	Cloud Architect	Design the cost effective, highly available and scalable architecture
	Cloud Operations	Provision required Services

	Tester	Define Test Cases and Perform Testing
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5.2 Responsibility Assignment Matrix

RACI Matrix		Team Members		
Activity		Name (BA)	Name (Developer)	Name (Project Manager)
User Requirement Documentation	A	C/I	I	R
A	Accountable			
R	Responsible			
C	Consult			
I	Inform			

Reference

1. <https://www.pmi.org/>
2. <https://www.projectmanagement.com/>
3. <https://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/ti-it/ervcpgmdsfvpmpt-eng.html>



Department of Computer Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	5
Title of Experiment	Prepare Work breakdown structure, Timeline chart, Risk identification table
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH (RA2011003010369)
Register Number	RA2011003010361 RA2011003010373 RA2011003010369
Date of Experiment	11/04/ 2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	

Total	10	
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Staff Signature with date

Aim

To Prepare Work breakdown structure, Timeline chart and Risk identification table

Team Members:

Sl No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

<Incorporate WBS, Timeline chart and Risk table>

WBS

0.0 Unwind

1.0 Initial Stages

- 1.1 Understanding problem and planning
- 1.2 Identify the approach
- 1.3 Documentation

2.0 Identification of methodology

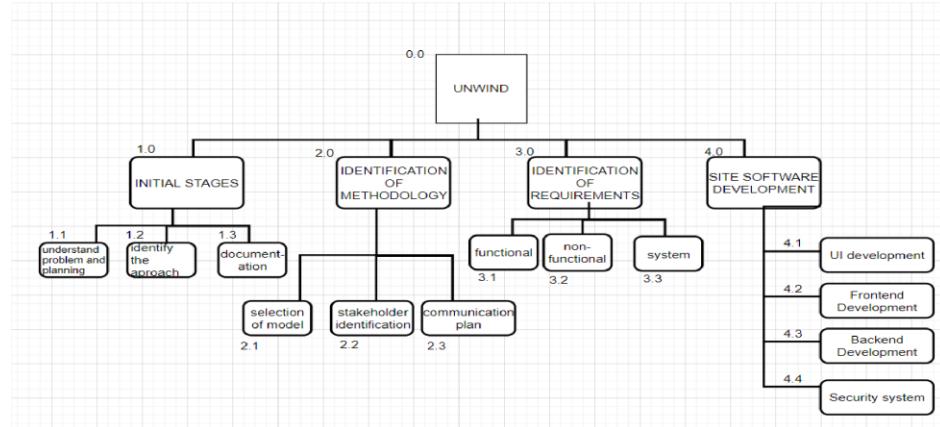
- 2.1 Selection of model
- 2.2 Stakeholder identification
- 2.3 Communication plan

3.0 Identification of Requirements

- 3.1 Functional
- 3.2 Non-functional
- 3.3 System

4.0 Site Software Development

- 4.1 UI Development
- 4.2 Frontend Development
- 4.3 Backend Development
- 4.4 Security systems



TIMELINE – GANTT CHART

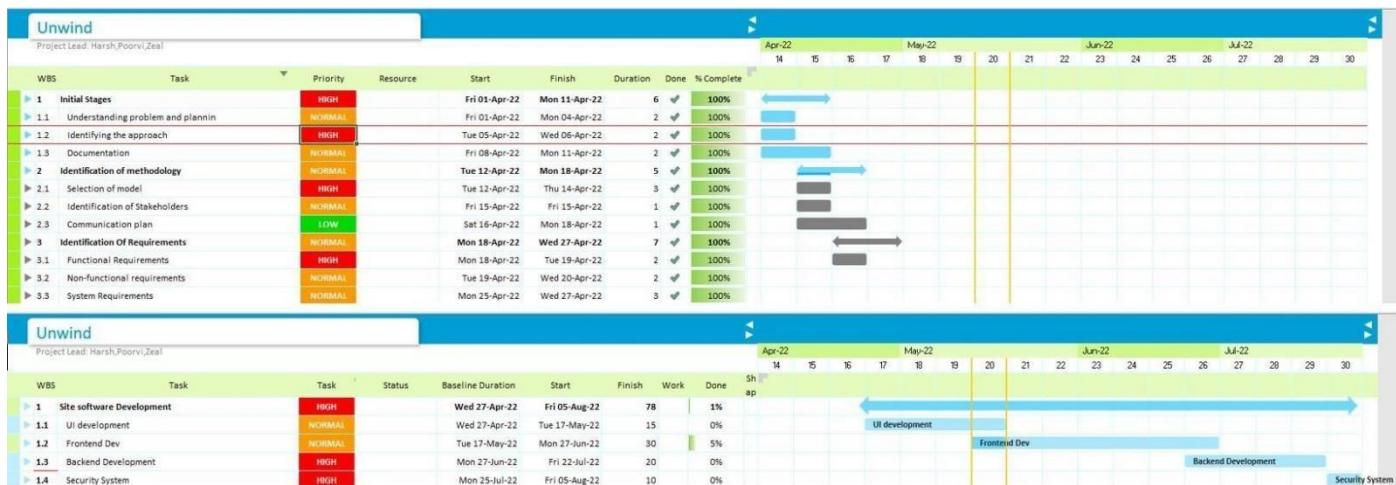


FIG:5.1 GANTT CHAR

STRENGTH	WEAKNESS	OPPORTUNITIES	THREATS
Cost Efficient	Development of applications	Adaptive to future needs	Cyber security

Secured Infrastructure	Cyber security	Quick solution to one of the major problem	Hidden cost (backup, problem solving and recovery.)
Convenient level of accessibility	Lack of People's trust	High-tech work environment	Ensuring people's trust
Expandability	Taboo	Pay for use lisences	Lack of specific standard regulation (local, national and international)

RISK MANAGEMENT AND MITIGATION

RESPONSE	STRATEGY	EXAMPLES
AVOID	Risk avoidance is a strategy where the project team takes action to remove the threat of the risks or protect from the impact.	<ul style="list-style-type: none"> ★ Extension of deadlines ★ Changing the execution strategy ★ Data exchange
TRANSFER	Risk transference involves shifting or transferring the risk threat and impact to a third party. Rather transfer the responsibility and ownership.	<ul style="list-style-type: none"> ★ Appointing cyber security expert to avoid any kind of user privacy

MITIGATE	Risk mitigation is a strategy where the project team takes action to reduce the probability of the risk occurring. This does not risk or potential impact, but rather reduces the likelihood of it becoming real.	<ul style="list-style-type: none"> ★ Cost management ★ Timeline management ★ Database management
ACCEPT	Risk acceptance means the team acknowledges the risks and its potential impact, but decides not to take any preemptive action to prevent it. It is dealt with only if it occurs.	★ Breach of anonymous privacy.

Result:

Thus, the work breakdown structure with timeline chart and risk table were formulated successfully.



Department of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	6
Title of Experiment	Design a System Architecture, Use Case and Class Diagram
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	RA2011003010361 RA2011003010373 RA2011003010369
Date of Experiment	20/04/2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	

2	Viva	5	
	Total	10	

Staff Signature with date

Aim

To Design a System Architecture, Use case and Class Diagram

Team Members:

Sl No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

System Architecture:

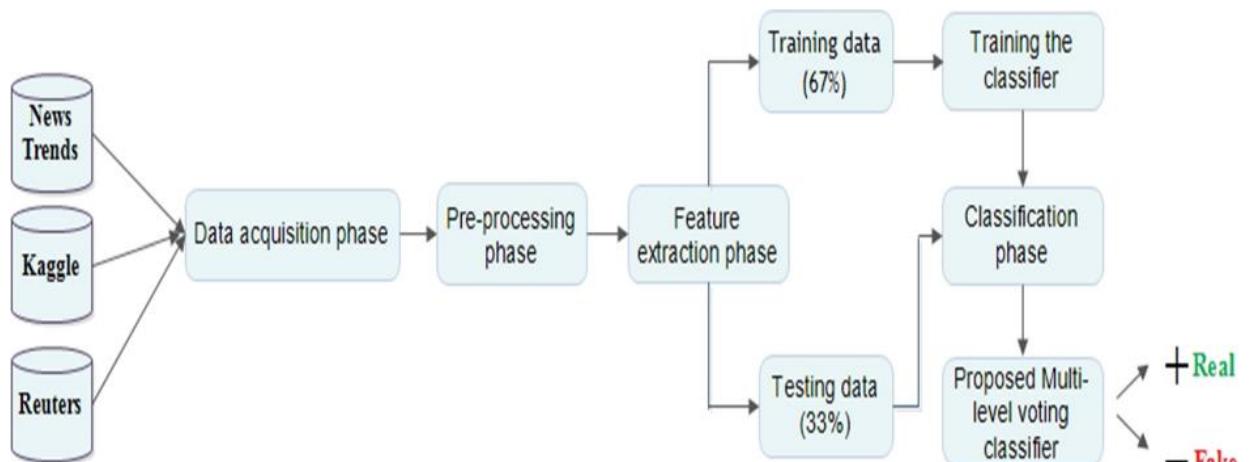


FIG:6.1 System Architecture

Use Case :

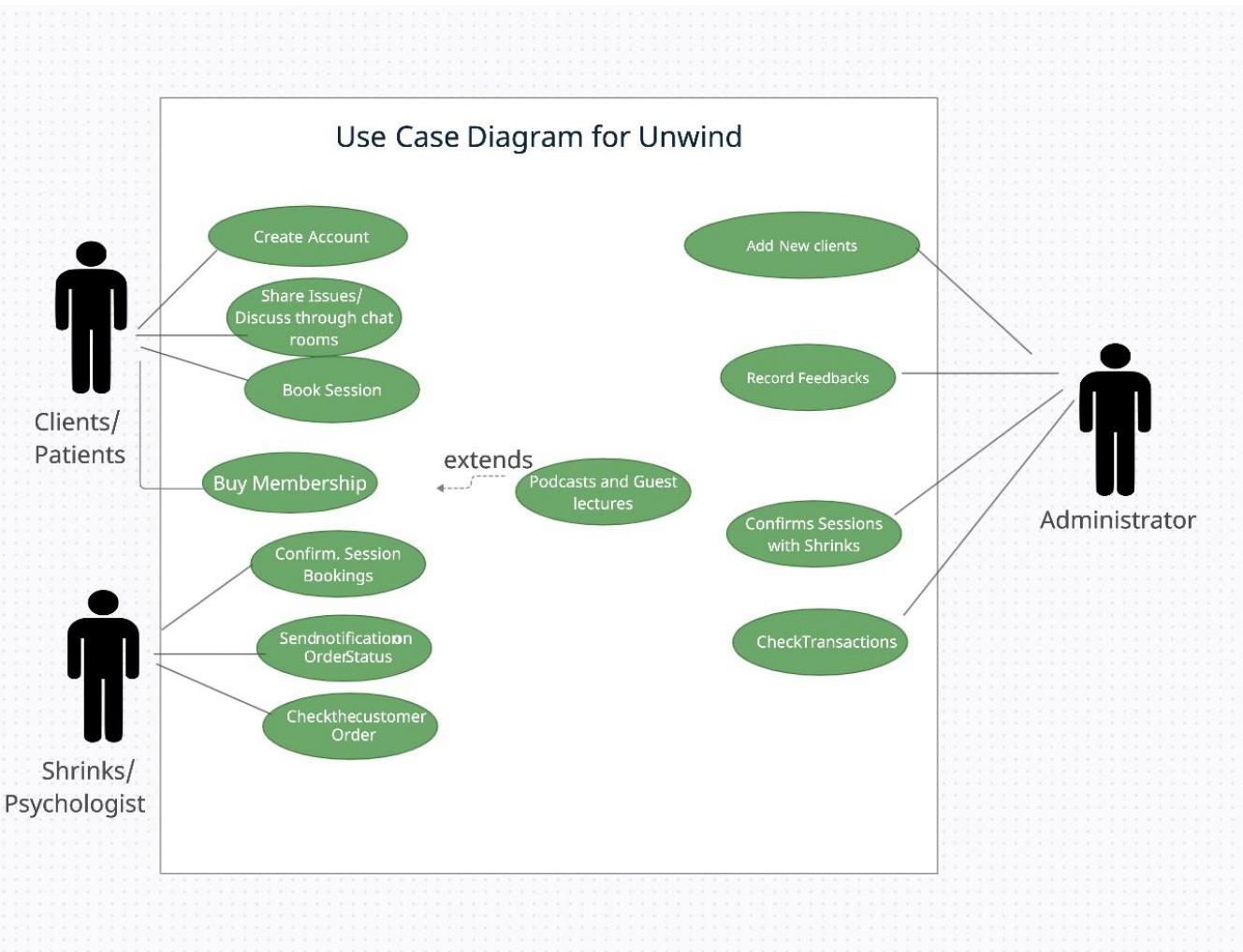


FIG: 6.2 USE-CASE DIAGRAM

Class Diagram:

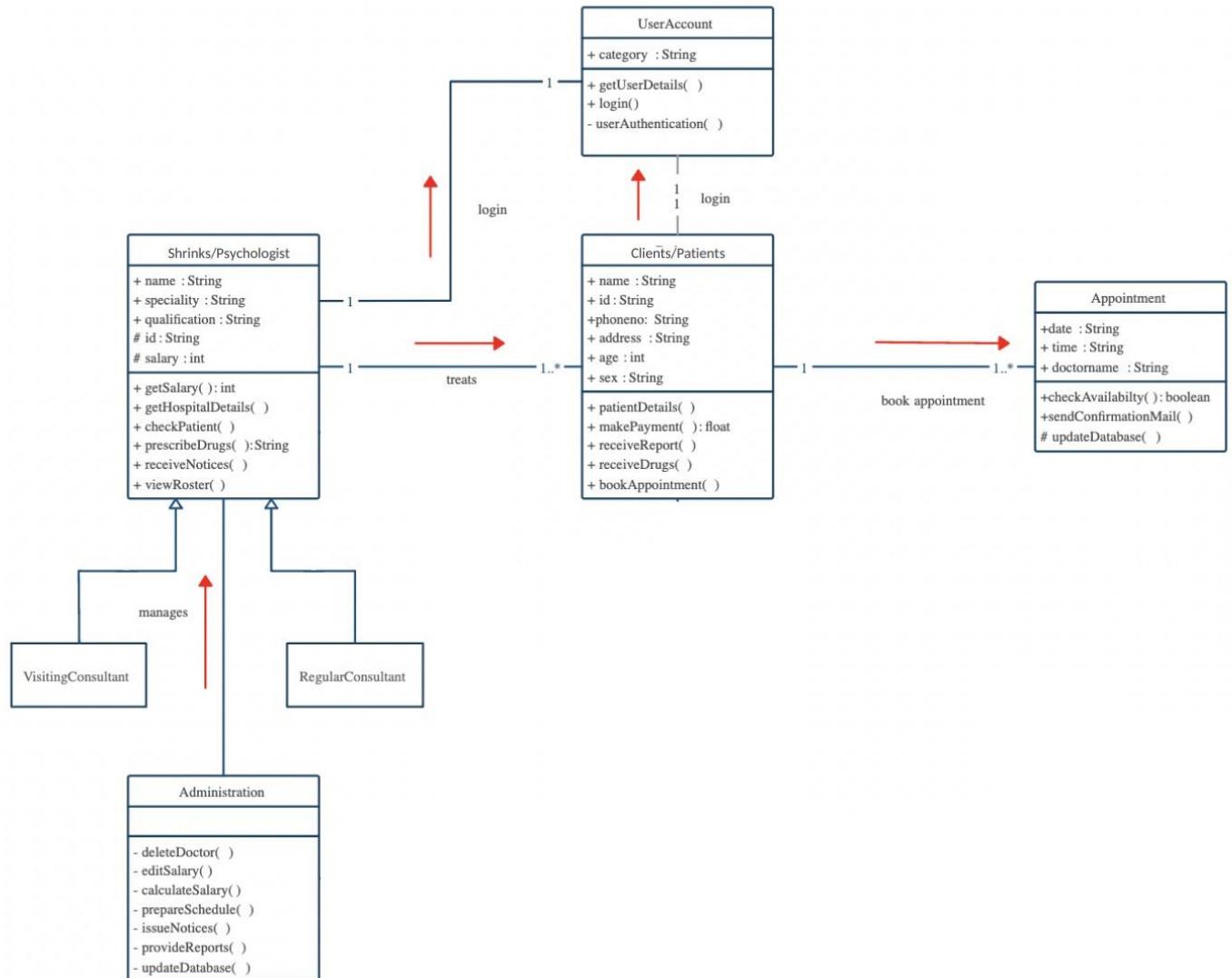


FIG:6.3 CLASS DIAGRAM

Result:

Thus, the system architecture, use case and class diagram created successfully.



School of Computing Technologies
SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	7
Title of Experiment	Design a Entity relationship diagram
Name of the candidate	POORVI MITTAL (RA2011003010361)
Team Members	HARSH KELAWALA (RA2011003010373) ZEAL SHAH (RA2011003010369)
Register Number	RA2011003010361
Date of Experiment	27/04 /22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

Staff Signature with date

Aim

To create the Entity Relationship Diagram

Team Members:

S No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

What is ER Diagram?

- ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.
- ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships.
- At first look, an ER diagram looks very similar to the flowchart. However, ER Diagram includes many specialized symbols, and its meanings make this model unique. The purpose of ER Diagram is to represent the entity framework infrastructure.

What is ER Model?

- ER Model stands for Entity Relationship Model is a high-level conceptual data model diagram. ER model helps to systematically analyze data requirements to produce a well-designed database.
- ER Model represents real-world entities and the relationships between them. Creating an ER Model in DBMS is considered as a best practice before implementing your database. - ER Modeling helps you to analyze data requirements systematically to produce a well-designed database. So, it is considered a best practice to complete ER modeling before implementing your database.

Why use ER Diagrams?

Here, are prime reasons for using the ER Diagram

- Helps you to define terms related to entity relationship modeling
- Provide a preview of how all your tables should connect, what fields are going to be on each table
- Helps to describe entities, attributes, relationships

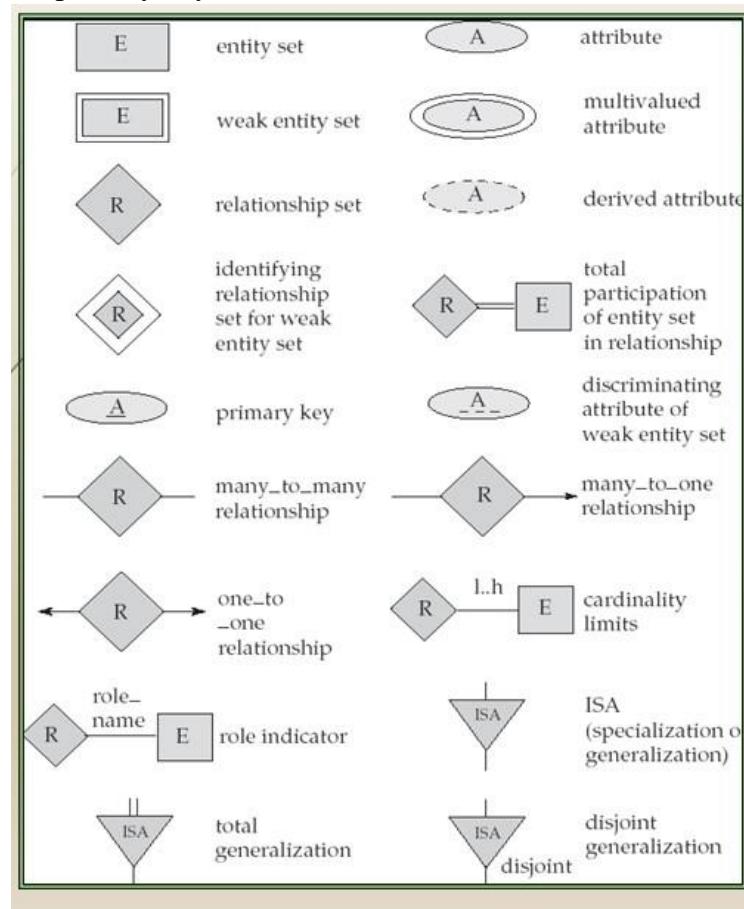
- ER diagrams are translatable into relational tables which allows you to build databases quickly
- ER diagrams can be used by database designers as a blueprint for implementing data inspecific software applications
- The database designer gains a better understanding of the information to be contained in thedatabase with the help of ERP diagram
- ERD Diagram allows you to communicate with the logical structure of the database to users

Components of the ER Diagram

This model is based on three basic concepts: Entities, Attributes, Relationships

ER Diagram – Notations

- Rectangles represent entity sets.
- Diamonds represent relationship sets.
- Lines link attributes to entity sets and entity sets to relationship sets.
- Ellipses represent attributes
- Double ellipses represent multivalued attributes.- Dashed ellipses denote derived attributes.
- Underline indicates primary key attributes



ER Diagram of UNWIND

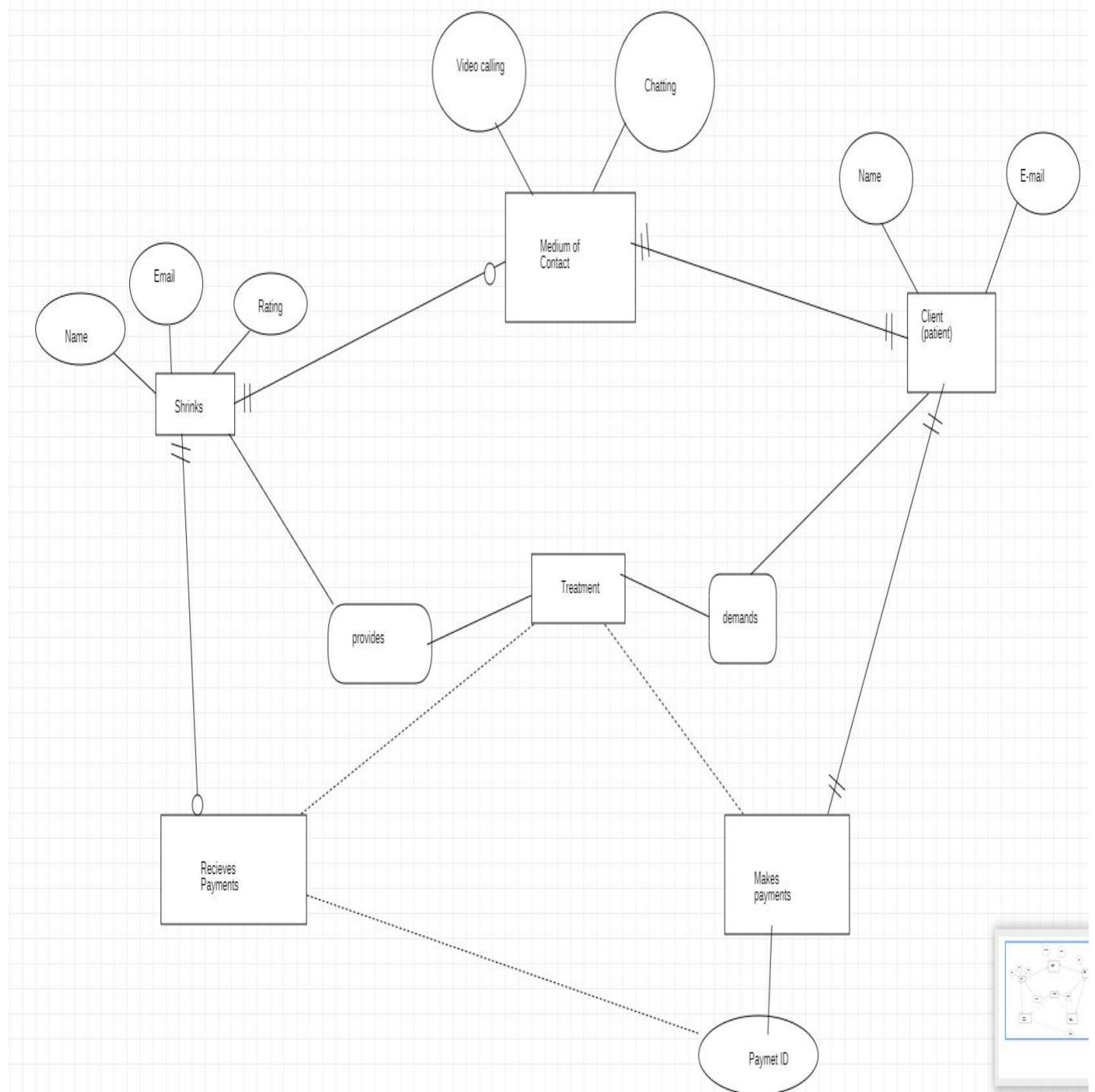


FIG:7.1 ENTITY REATIONSHIP DIAGRAM

ADDITIONAL NOTES

- A database can be modeled as a collection of entities, relationship among entities.

- An entity is an object that exists and is distinguishable from other objects. Example: specific person, company, event, plant
- Entities have attributes.

Example: people have names and addresses

- An entity set is a set of entities of the same type that share the same properties. Example: set of all persons, companies, trees, holidays
- Express the number of entities to which another entity can be associated via a relationship set.
- Most useful in describing binary relationship sets.
- We express cardinality constraints by drawing either a directed line (->), signifying “one,” or an undirected line (—), signifying “many,” between the relationship set and the entity set.

- An entity is represented by a set of attributes, that is descriptive properties possessed by all members of an entity set.

Example: customer = (customer-id, customer-name, customer-street, customer-city)

loan = (loan-number, amount)

- Domain – the set of permitted values for each attribute- Attribute types:

1. Simple and composite attributes.
2. Single-valued and multi-valued attributes

E.g. multivalued attribute: phone-numbers

3. Derived attributes-Can be computed from other attributes

E.g. age, given date of birth

Cardinality

- For a binary relationship set the mapping cardinality must be one of the following types:

1. One to one

A customer is associated with at most one loan via the relationship borrower. A loan is associated with at most one customer via borrower

2. One to many

A loan is associated with at most one customer via borrower, a customer is associated with several (including 0) loans via borrower

3. Many to one

A loan is associated with several (including 0) customers via borrower, a customer is associated with at most one loan via borrower

4. Many to many

A loan is associated with several (including 0) customers via borrower, a customer is associated with several loans (including 0) via borrower

Weak Entity Set

- An entity set that does not have a primary key is referred to as a weak entity set and represented by double outlined box in E-R diagram.

Example : Consider the entity set payment which got three attributes : payment_number, payment_date and payment_amount. Payment numbers are sequential starting from 1 generally separately for each loan. Although each payment entity is distinct, payments for different loans may share the same payment number. Thus this entity set does not have a primary key.

Discriminator

- The discriminator (or partial key) of a weak entity set is the set of attributes that distinguishes among all the entities of a weak entity set

Example: discriminator of weak entity set payment is the attribute payment_number since for each loan a payment number uniquely identifies one single payment for that loan.

Specialization-Generalization-ISA

- E-R model provides means of representing these distinctive entity groupings
- Process of designating subgroupings within an entity set is called specialization depicted by triangle component labelled ISA ("is a")
- Bottom up design process in which multiple entity sets are synthesized into higher level entity set - Generalization
- ISA relationship may also be referred to as superclass-subclass relationship
- Higher and lower level entity sets are designated by the terms superclass and subclass.
- Specialization and generalization are simple inversions of each other; they are represented in an E-R diagram in the same way.

Total & Partial Participation

- Total participation (indicated by double line): every entity in the entity set participates in at least one relationship in the relationship set

E.g. participation of loan in borrower is total, every loan must have a customer associated to it via borrower

- Partial participation: some entities may not participate in any relationship in the relationship set

Example: participation of customer in borrower is partial

Cardinality limits

- Cardinality limits can also express participation constraints
- Minimum and maximum cardinality is expressed as l..h where l is the minimum and h is the maximum cardinality
- Minimum value of 1 indicates total participation of entity set in relationship set - Maximum value of 1 indicates entity participates in atmost one relationship set. - Maximum value of * indicates no limit

Role indicator

- Entity sets of a relationship need not be distinct
- The labels "manager" and "worker" are called roles; they specify how employee entities interact via the works-for relationship set.
- Roles are indicated in E-R diagrams by labeling the lines that connect diamonds to rectangles.
- Role labels are optional, and are used to clarify semantics of the relationship

Disjoint Generalization

- Disjointness constraint requires that an entity belong to more than one lower level entity set. Example: account entity can satisfy only one condition for account_type attribute ; entity can either be savings or chequing account but not both.

Result:

Thus, the entity relationship diagram was created successfully.



School of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	8
Title of Experiment	Develop a Data Flow Diagram (Process-Up to Level 1)
Name of the candidate	Poorvi Mittal
Team Members	Harsh Kelawala, Zeal Shah
Register Number	RA2011003010361, RA2011003010373, RA2011003010369
Date of Experiment	5/5/2022

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	10	

Staff Signature with date

Aim

To develop the data flow diagram up to level 1 for the Employee Management System

Team Members:

S No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

Employee Management System

DFD Diagram

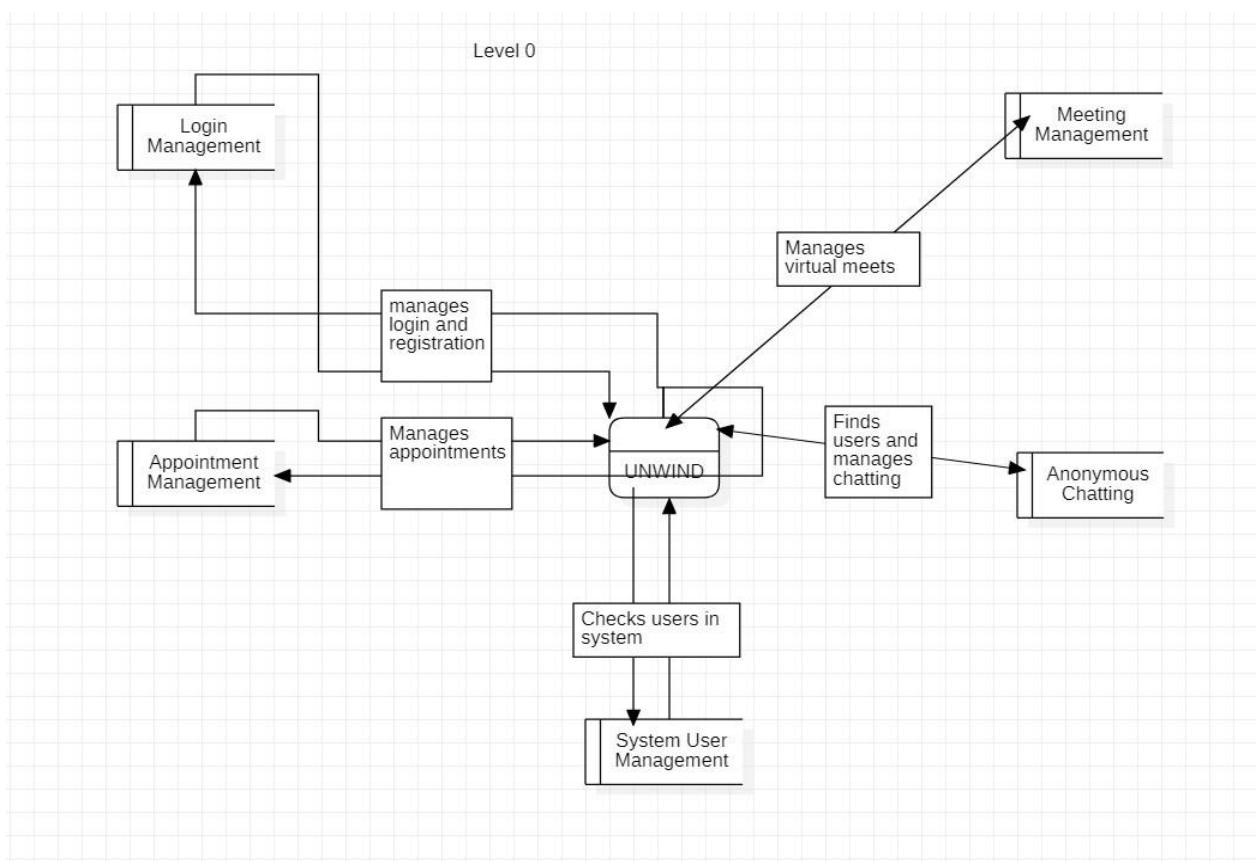


FIG:8.1 DATA-FLOW DIAGRAM LEVEL 0

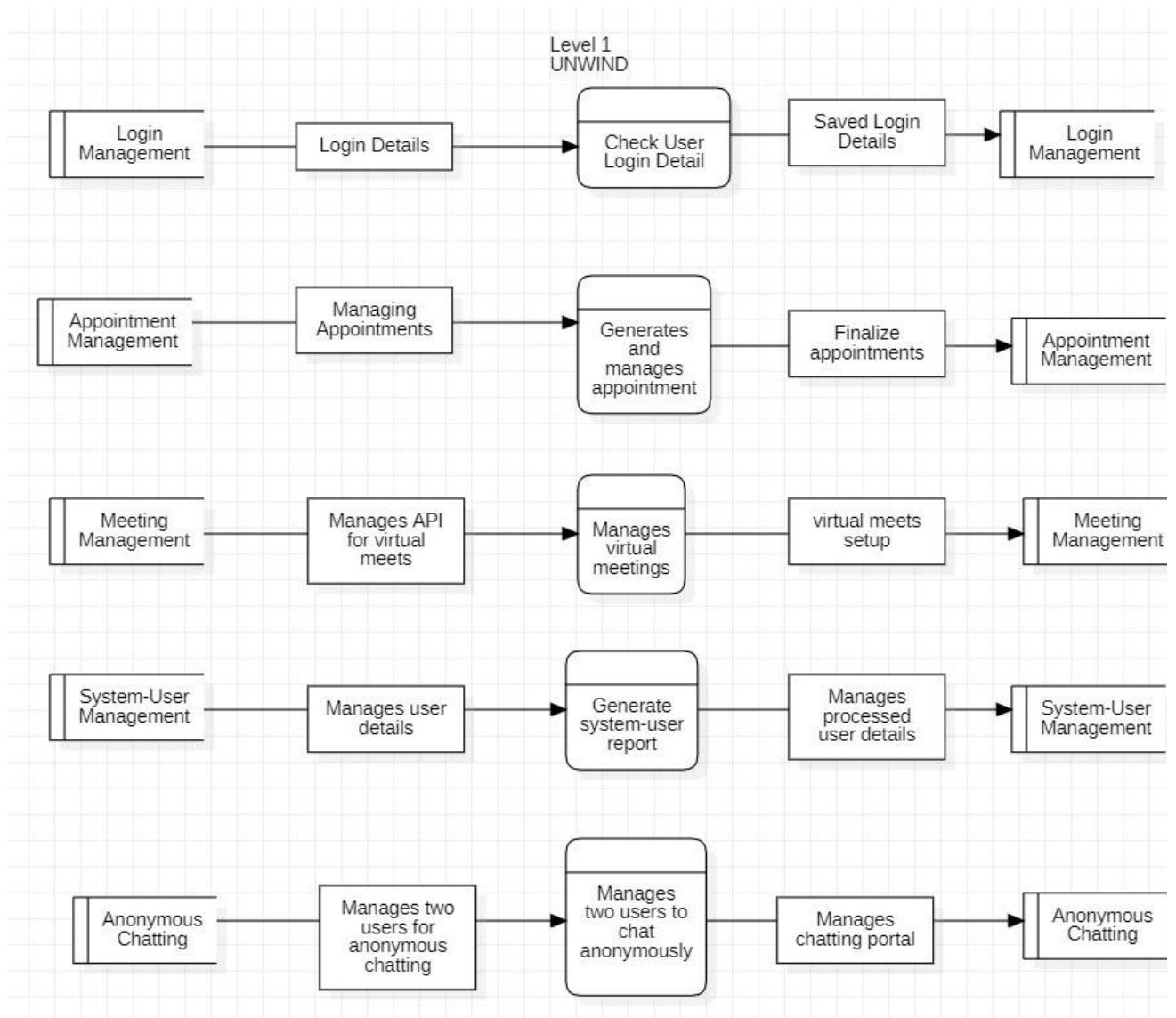


FIG:8.2 DATA-FLOW DIAGRAM LEVEL 1

Result:

Thus, the data flow diagrams have been created for the Employee Management system.



School of Computing Technologies

SRM IST, Kattankulathur – 603 203 Course

Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	9
Title of Experiment	Design a Sequence and Collaboration Diagram
Name of the candidate	POORVI MITTAL
Team Members	ZEAL SHAH HARSH KELAWALA
Register Number	RA2011003010361
Date of Experiment	12/5/22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	10	

Staff Signature with date

Aim

To create the sequence and collaboration diagram for the <project name>

Team Members:

S No	Register No	Name	Role
1	RA2011003010361	Poorvi Mittal	Rep
2	RA2011003010373	Harsh Kelawala	Member
3	RA2011003010369	Zeal Shah	Member

<Sequence and Collaboration Diagram>

Sequence Diagram

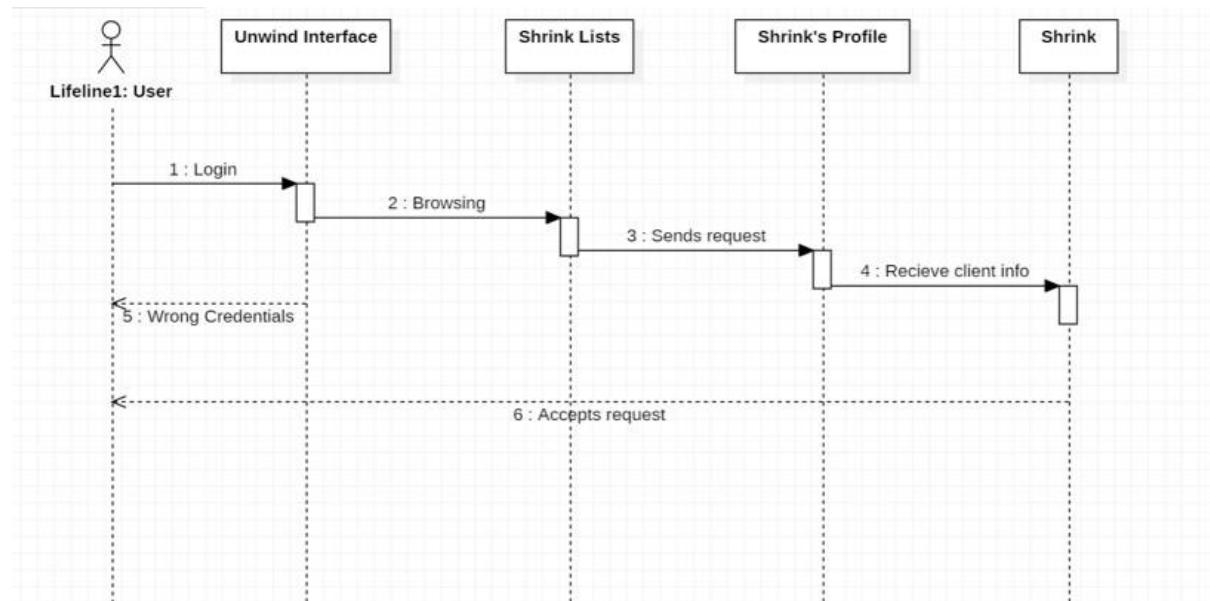


FIG:9.1 SEQUENCE DIAGRAM FOR USER

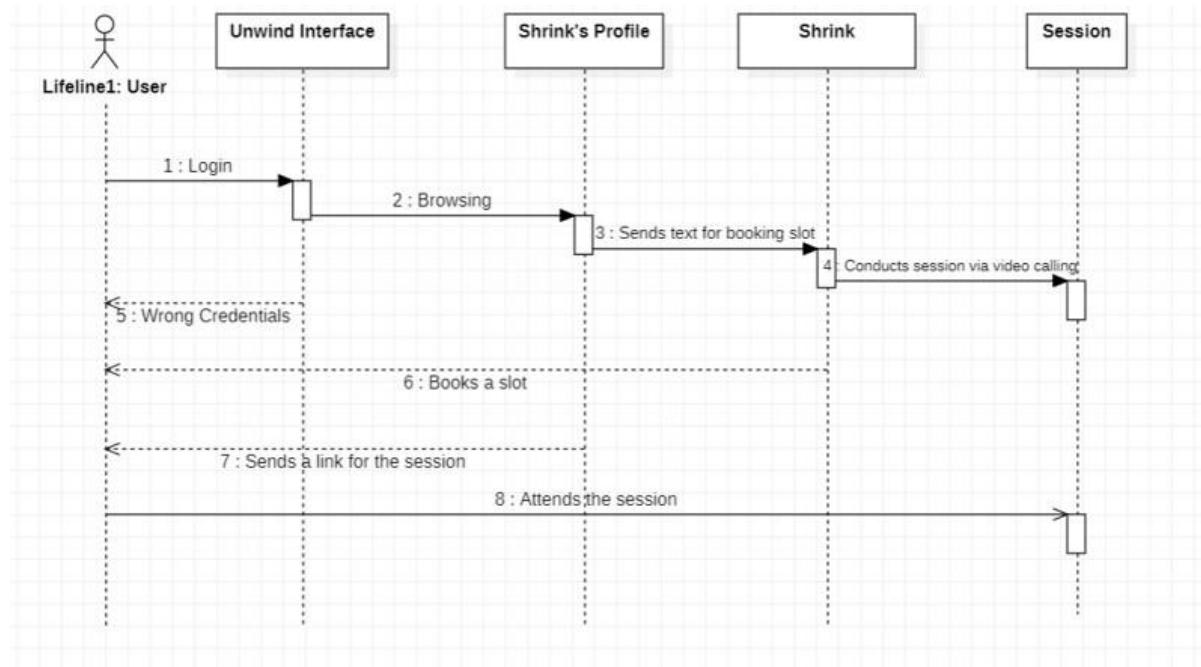


FIG:9.2 SEQUENCE DIAGRAM FOR USER

Collaboration Diagram

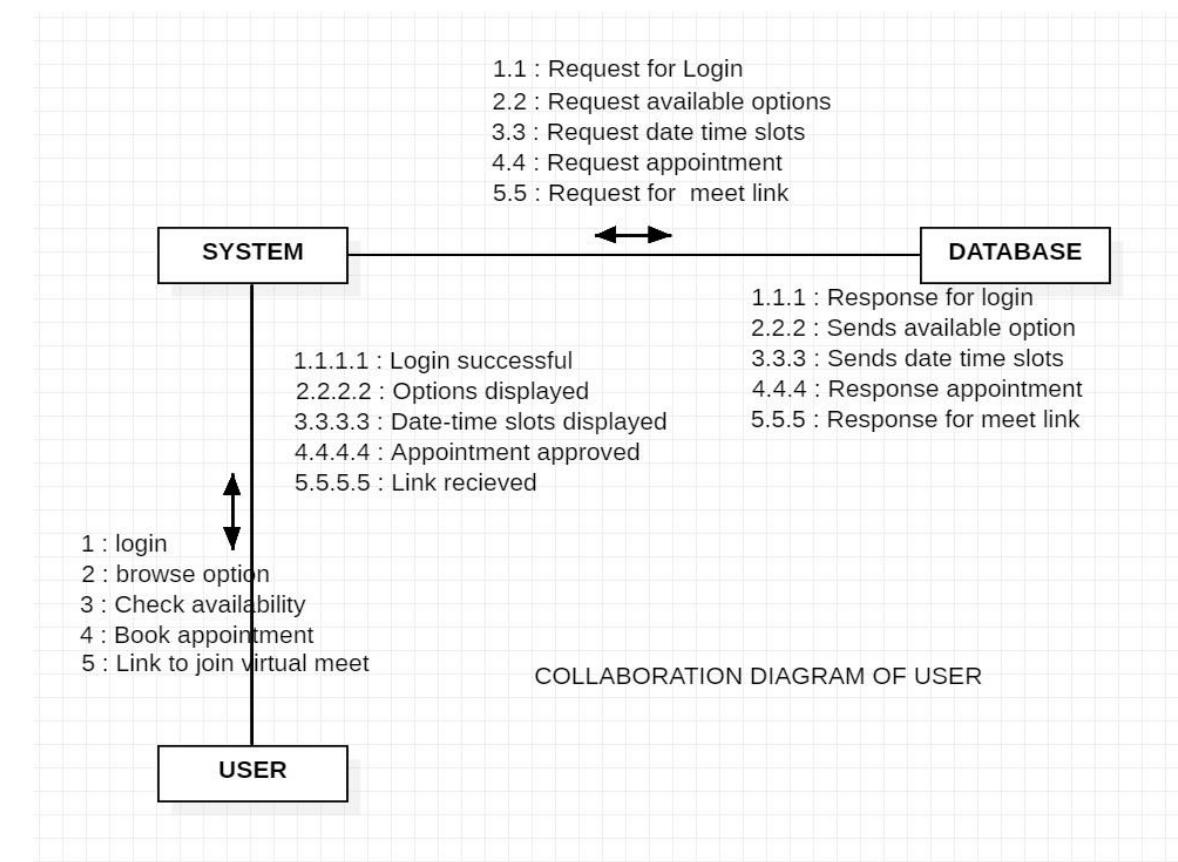


FIG:9.3 COLLABORATION DIAGRAM FOR USER

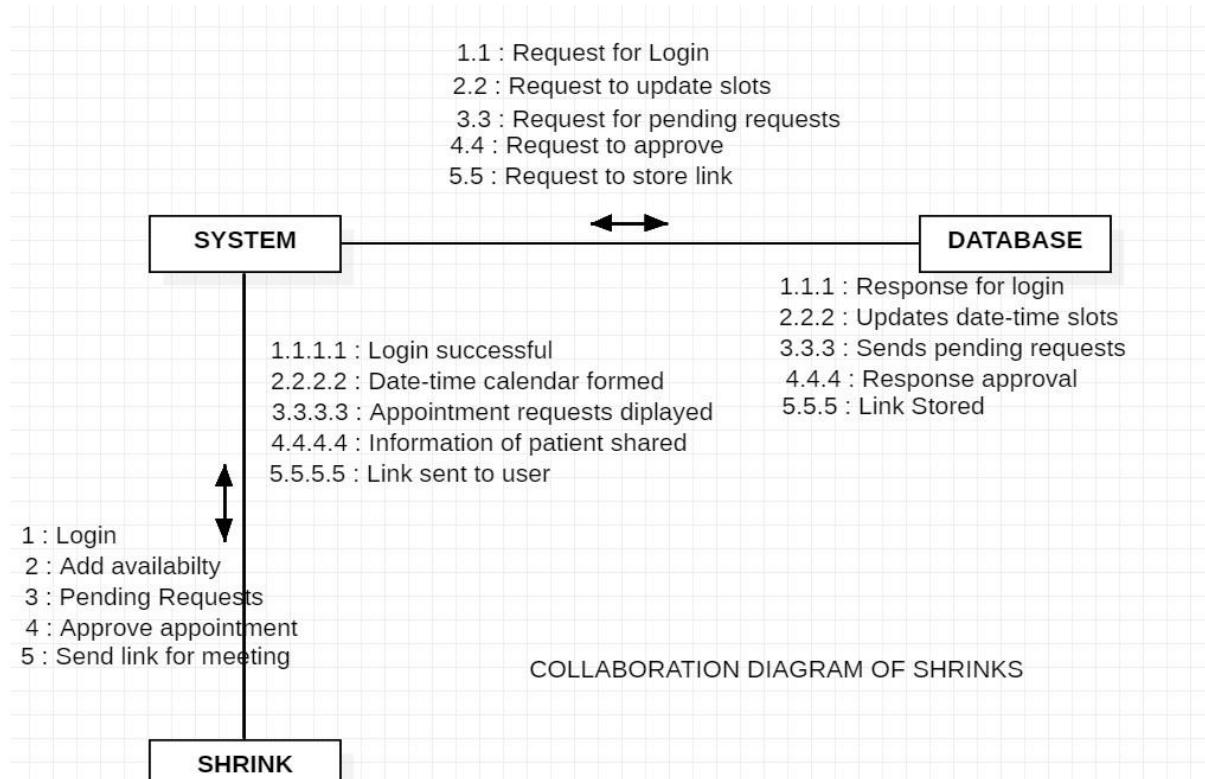


FIG:9.4 COLLABORATION DIAGRAM FOR SHRINK

Result:

Thus, the sequence and collaboration diagrams were created for UNWIND.



School of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	10
Title of Experiment	Develop a Testing Framework/User Interface
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	RA2011003010361 RA2011003010369 RA2011003010373
Date of Experiment	19/5/22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

Sta

Signature with date

Aim

To develop the testing framework and/or user interface framework for the <project name> Team Members:

S No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep/Member
2	RA2011003010369	ZEAL SHAH	Member
3	RA2011003010373	HARSH KELAWALA	Member

Executive Summary

Both functional and non-functional requirements have been tested with the help of automated and manual tools depending upon the required functionality.

Scopes of Testing: Functional

Test Area	Input	Methodology	Tools Required
Homepage Design Feel	-	Manual	Post Review
Login Module	Username and Password	Manual	-
Responsiveness	UI/UX	Automated	Maze, usertesting.com
Searching	Items	Manual	-
Payment Options/Security	Cards and UPI	Manual	Stripe
Logistics	Order	Manual	Time Record

Non-Functional

Test Area	Testing Method	Tools
Usability	Automated	UserFeel
Security	Automated	SSL
Performance	Automated	LoadNinja
Scalability	Manual	

Result:

Thus, the testing framework/user interface framework has been created for Unwind.



School of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	11
Title of Experiment	Test Cases
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	RA2011003010361 RA2011003010369 RA2011003010373
Date of Experiment	26/5/2022

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

Staff Signature with date

Aim

To develop the test cases manual for the <project name>

Team Members:

S No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep
2	RA2011003010369	ZEAL SHAH	Member
3	RA2011003010373	HARSH KELAWALA	Member

Test Case Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
	Verify User Login	Accept Valid Password	<ol style="list-style-type: none">1. User enters username2. Enter the password3. Click Login button	User details should be verified and home page should be shown	Home page shown when correct details entered	Pass	success
	Searching of Items	Valid search results form given input	<ol style="list-style-type: none">1.User enters a key word or phrase into search bar2.according to given key word, related products displayed	Key words should be cross referenced with database and relevant products showed	Items related to key words showed	pass	success

Non-Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
	Scalability	Expanding number of users to 2000 at one time	1. 2000 users enter usernames and passwords 2.all users search for varied products	Website handles all users simultaneously with no lag and buffering	1% of users experienced 404 errors and 2% experienced slow response time	Pass	Can be improved

Result:

Thus, the test case manual has been created for the Unwind.



School of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	12
Title of Experiment	Manual Test Case Reporting
Name of the candidate	POORVI MITTAL (RA2011003010361)
Team Members	HARSH KELAWALA ZEAL SHAH
Register Number	RA2011003010361
Date of Experiment	2/6/22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

Staff Signature with date

Aim

To prepare the manual test case report for UNWIND

Team Members:

S No	Register No	Name	Role
1	RA2011003010361	Poorvi Mittal	Rep/Member
2	RA2011003010369	Zeal Shah	Member
3	RA2011003010373	Harsh Kelawala	Member

Test Report:

Testing was successful. Obstacles were presented to the stakeholders and were further looked into. Obstacles were removed.

Category	Progress Against Plan	Status
Functional Testing	Green	Completed
Non-Functional Testing	Green	Completed
Functional	Test Case Coverage (%)	Status
User Login	100%	Completed
Browsing	100%	Completed
Anonymous Chatting	50%	In process
Premium Subscriptions	100%	Completed

Result:

Thus, the test case report has been created for the UNWIND.



School of Computing Technologies

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	13
Title of Experiment	Provide the details of Architecture Design/Framework/Implementation
Name of the candidate	POORVI MITTAL
Team Members	HARSH KELAWALA ZEAL SHAH
Register Numbers	RA2011003010361
Date of Experiment	09/06/2022

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

Staff Signature with date

To provide the details of architectural design/framework/implementation

Team Members:

S No	Register No	Name	Role
1	RA2011003010361	POORVI MITTAL	Rep/Member
2	RA2011003010373	HARSH KELAWALA	Member
3	RA2011003010369	ZEAL SHAH	Member

MODULE 1: Booking online counselling session

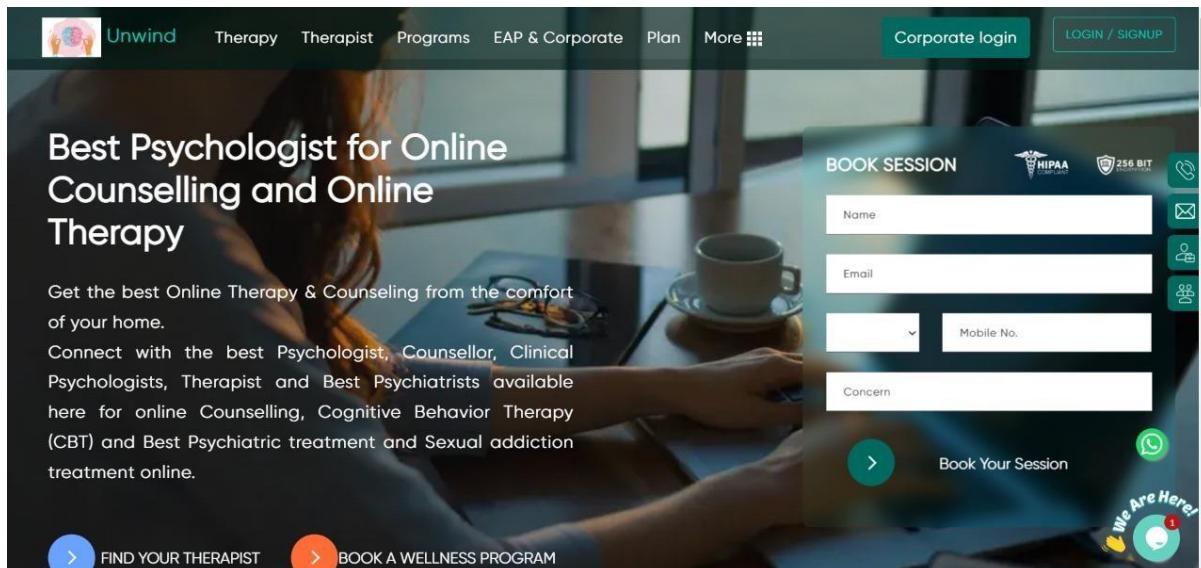


FIG:13.1 APPOINTMENT/COUNSELLING BOOKING MODULE SCREENSHOT

```

1  <div class="search-area">
2
3      <!-- <h2 class="text-center">Get started with us!!</h2> -->
4
5
6      <div class="m-auto " style="position: relative;">
7          <div class="">
8              <div class="section-header mb-3 ">
9                  <div class="hippa-logo text-center d-flex justify-content-between align-items-center">
10                     <h4 class=" text-white text-center font-weight-700 mb-0">BOOK SESSION
11                     </h4>
12                     <div class="label-panel m">
13                         
15                     </div>
16
17             </div>
18
20         </div>
21     </div>
22     <!-- <div class="label-panel text-center mb-2">
23         
24         
25     </div> -->
26
27
28         <div class=" " >
29             <!-- <h3 class=" mb-4">Book Instant Online Counselling Session
30             </h3> -->
31                 <!-- <p class="text-left">Book Instant Online Counselling Session</p>
32                 -->
33                 <div class="header-form">
34                     <div class="row mb-3">
35                         <div class="col-md-12 mb-3">
36                             <div class="form-group form-focus">
37                                 <input name="ctl00$ContentPlaceHolder1$txtcname" type="text" id="ContentPlaceHolder1_txtcname" class="form-control floating">
38                                 <label class="focus-label" for="ctl00$ContentPlaceHolder1$txtcname">Name</label>
39
40
41
42
43
44
45
46
47
48
49
50
51
52

```

```

52
53
54
55
56
57     </select>
58
59
60
61
62
63
64
65
66

```

MODULE 2: Selecting options: therapy and therapist(shrink)

Online Counseling Services

Get online therapy and psychological counselling for depression, anxiety, panic attack, phobia, bipolar disorder, relationship issues, breakup, autism, sleep disorder, stress, anger issues. Receive Cognitive Behavioural Therapy (CBT) and relationship counselling through HopeQure's experienced and certified psychologists.

Therapy For Anxiety Therapy For Stress Couple Therapy Counseling For Breakup Therapy For Depression Therapy For OCD

PTSD Therapy For Bipolar Sleep Disorder Personality Disorder Violence Abuse Therapy For Bullying

Unwind Therapy Therapist Programs EAP & Corporate Plan More Corporate login LOGIN / SIGNUP

Select the right mental health therapist for online video counselling with specialisations that suit your needs. Get psychological help from licensed, certified, and verified psychologists with the comfort of your home.

so that we can help you better.

Why see a Therapist?

How to select the Right Therapist?

Why registration and specialization matters?

Types of Therapists.

Mental Health Issues

FIG:13.2: OPTIONS BROWSING MODULE FOR KIND OF THERAPY AND THE THERAPIST NEEDED

The screenshot shows the Unwind website's homepage. At the top, there's a navigation bar with links for 'Therapy', 'Therapist', 'Programs', 'EAP & Corporate', 'Plan', 'More', 'Corporate login', and 'LOGIN / SIGNUP'. Below the navigation is a grid of cards representing different mental health topics:

- Clinical Therapy**: Deals with specific mental health disorders and coping techniques.
- Behavioural Therapy**: Recognise the trouble behaviour and change it for good.
- Relationship Therapy**: Learn how to establish stable and satisfying relationships.
- Therapy for Children and Teenagers**: Explore solutions for prevailing childhood psychological problems.
- Therapy for Personality Issues**: Insights about personality types and management of unhealthy traits.
- Depression**: An elongated feeling of sadness with decreased pleasure in favourite activities and frequent fatigue.
- Anxiety**: State of heightened arousal that occurs frequently causing racing heart and hampers ability to concentrate.
- PTSD**: Stressful episodes that occur after a traumatic experience while hampering day to day activities.
- Bipolar**: Frequent behaviour swings between depression and mania.
- Obsessive Compulsive Disorder**: Thoughts that you cannot stop, repetitive behavior you keep doing again and again.
- Eating Disorders**: Irregular eating patterns leading to extreme weight gain or loss.
- Sleep Disorders**: Irregular sleep pattern with too high or too less sleep duration.

A red 'View More' button is located at the bottom right of the grid. On the right side of the page, there are several green circular icons with white symbols, and a small red notification badge with the number '1'.

```

1  <div class="navbar">
2    <a href="#home">Home</a>
3    <a href="#news">News</a>
4    <div class="dropdown">
5      <button class="dropbtn">More
6        | <i class="fa fa-caret-down"></i>
7      </button>
8      <div class="dropdown-content">
9        | <a href="#">Link 1</a>
10       | <a href="#">Link 2</a>
11       | <a href="#">Link 3</a>
12     </div>
13   </div>
14 </div>

```

```

1  /* Navbar container */
2  .navbar {
3    overflow: hidden;
4    background-color: #333333;
5    font-family: Arial;
6  }
7
8  /* Links inside the navbar */
9  .navbar a {
10   float: left;
11   font-size: 16px;
12   color: white;
13   text-align: center;
14   padding: 14px 16px;
15   text-decoration: none;
16 }
17
18 /* The dropdown container */
19 .dropdown {
20   float: left;
21   overflow: hidden;
22 }

```

```

24  /* Dropdown button */
25  .dropdown .dropbtn {
26    font-size: 16px;
27    border: none;
28    outline: none;
29    color: white;
30    padding: 14px 16px;
31    background-color: inherit;
32    font-family: inherit; /* Important for vertical align on mobile phones */
33    margin: 0; /* Important for vertical align on mobile phones */
34  }
35
36  /* Add a red background color to navbar links on hover */
37  .navbar a:hover, .dropdown:hover .dropbtn {
38    background-color: red;
39  }
40
41  /* Dropdown content (hidden by default) */
42  .dropdown-content {
43    display: none;
44    position: absolute;
45    background-color: #f9f9f9;
46    min-width: 160px;

```

```

51  /* Links inside the dropdown */
52  .dropdown-content a {
53    float: none;
54    color: black;
55    padding: 12px 16px;
56    text-decoration: none;
57    display: block;
58    text-align: left;
59  }
60
61  /* Add a grey background color to dropdown links on hover */
62  .dropdown-content a:hover {
63    background-color: #ddd;
64  }
65
66  /* Show the dropdown menu on hover */
67  .dropdown:hover .dropdown-content {
68    display: block;
69  }

```

Module 3: Anonymous chatting

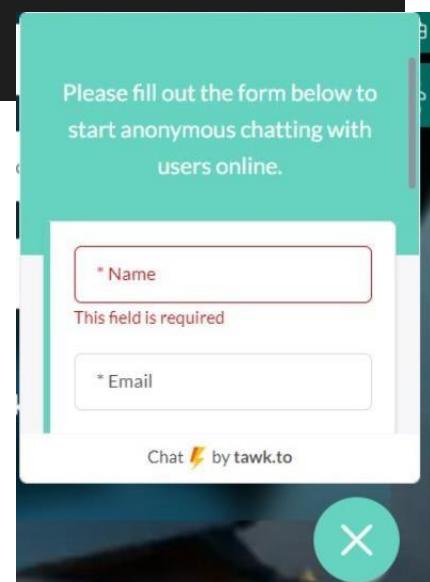


FIG:13.3 ANONYMOUS CHATTING MODULE SCREENSHOT

```
1 <div class="tawk-card tawk-card-inverse tawk-card-xsmall tawk-footer tawk-flex-none"
2 |   style="border-radius: 0px;"><div id="jrs2bmhkf0s81656250594716" class="tawk-text-center
|     tawk-padding-small"><a id="g3169i077nd81656250594716" tabindex="-1"></a><a
|       id="ggl65nfj65ao1656250594716" tabindex="-1"></a><a
|         id="ocititpbglmg1656250594716" href="https://www.tawk.to/?_
|           utm_source=visitor-widget&utm_medium=link&utm_campaign=referral&utm_
|             term=5ef6d0189e5f6944229165e9" class="tawk-branding" style="color: #rgb
|               (79, 79, 79); font-size: 0.75em; font-weight: 400; text-decoration: none;
|                 padding: 0.5em;"> Chat  by <span class="tawk-text-bold"> tawk.to </span></a><a
|           id="p8jgv6dfqp081656250594716" tabindex="-1"></a></div><!----><!---->
```

Result:

Thus, the details of architectural design/framework/implementation along with the screenshots were provided.

CONCLUSION

In this document, the development of UNWIND was carried out to reduce the stress, depression, anxiety, etc. and many other mental health problems.. The project was implemented using HTML and CSS programming language and Microsoft SQL Server for database. The system was developed after analyzing and reviewing the current health sector applications and a Use Case diagram was used to understand the actors of the system.

This document has shown that UML specification is an important specification to ensure the completeness of an information system. And from the above work and discussion it is concluded that the UML is a powerful modeling language to solve scientific problems. In this document a complete modeling of appointment booking, choosing therapy and therapists, anonymous chatting process has been done through the UML and its results are shown in the form of graphs. Mapping from design into implementation is an important process in software development life cycle. UNWIND shows an example of effective way to manage mental help and linking to dependent individuals through a database. The combination of all modules into one website will ensure the prefect platform to eradicate mental health problems and linking mental help seekers and shrinks.

REFERENCES

- [1] <https://shsu-ir.tdl.org/shsu-ir/bitstream/handle/20.500.11875/1164/0781.pdf?sequence=1>
- [2] <https://ieeexplore.ieee.org/document/6208293/>
- [3] <https://ieeexplore.ieee.org/document/4679917/>
- [4] <https://www.pmi.org/>
- [5] <https://www.projectmanagement.com/>
- [6] <https://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/ti-it/ervcpgpm-dsfvpmpt-eng.html>

Appendix (Code)

1. Appointment Handling

```
1  <div class="search-area">
2
3      <!-- <h2 class="text-center">Get started with us!!</h2> -->
4
5
6      <div class="m-auto " style="position: relative;">
7          <div class="">
8              <div class="section-header mb-3 ">
9                  <div class="hippa-logo text-center d-flex justify-content-between align-items-center">
10                     <h4 class=" text-white text-center font-weight-700 mb-0">BOOK SESSION
11
12                     <div class="label-panel m">
13                         
14                         
15                     </div>
16
17                 </div>
18             </div>
19
20             </div>
21         </div>
22         <!-- <div class="label-panel text-center mb-2">
23             
24             
25         </div> -->
26
27         <div class=" " >
28             <!-- <h3 class=" mb-4">Book Instant Online Counselling Session
29             </h3> -->
30             <!-- <p class="text-left">Book Instant Online Counselling Session</p>
31             -->
32             <div class="header-form">
33                 <div class="row mb-3">
34                     <div class="col-md-12 mb-3">
35                         <div class="form-group form-focus">
36                             <input name="ctl00$ContentPlaceHolder1$txtcname" type="text" id="ContentPlaceHolder1_txtcname" class="form-control floating">
37                             <label class="focus-label" for="ctl00$ContentPlaceHolder1$txtcname">Name</label>
38
39                             <label class="focus-label" for="ctl00$ContentPlaceHolder1$txtcname">Name</label>
40                         </div>
41                     </div>
42                     <div class="col-md-12">
43                         <div class="form-group form-focus">
44
45                             <input name="ctl00$ContentPlaceHolder1$txtemail" type="text" onchange="javascript:setTimeout('__doPostBack(\"ctl00$ContentPlaceHolder1$txtemail\", \"\")', 0)" onkeypress="if (WebForm_TextBoxKeyHandler(event) == false) return false;" id="ContentPlaceHolder1_txtemail" class="form-control floating" placeholder="Your Email ID">
46                             <label class="focus-label" for="ctl00$ContentPlaceHolder1$txtemail">Email</label>
47
48                         </div>
49                     </div>
50
51                     <div class="row d-flex align-items-center mb-3">
52                         <div class=" col-md-4">
```

2. Browsing Options

```
1  <div class="navbar">
2    <a href="#home">Home</a>
3    <a href="#news">News</a>
4    <div class="dropdown">
5      <button class="dropbtn">More
6        | <i class="fa fa-caret-down"></i>
7      </button>
8      <div class="dropdown-content">
9        | <a href="#">Link 1</a>
10       | <a href="#">Link 2</a>
11       | <a href="#">Link 3</a>
12     </div>
13   </div>
14 </div>
```

```
1  /* Navbar container */
2 .navbar {
3   overflow: hidden;
4   background-color: #333;
5   font-family: Arial;
6 }
7
8 /* Links inside the navbar */
9 .navbar a {
10   float: left;
11   font-size: 16px;
12   color: white;
13   text-align: center;
14   padding: 14px 16px;
15   text-decoration: none;
16 }
17
18 /* The dropdown container */
19 .dropdown {
20   float: left;
21   overflow: hidden;
22 }
```

```
24  /* Dropdown button */
25  .dropdown .dropbtn {
26    font-size: 16px;
27    border: none;
28    outline: none;
29    color: black;
30    padding: 14px 16px;
31    background-color: inherit;
32    font-family: inherit; /* Important for vertical align on mobile phones */
33    margin: 0; /* Important for vertical align on mobile phones */
34  }
35
36 /* Add a red background color to navbar links on hover */
37 .navbar a:hover, .dropdown:hover .dropbtn {
38   background-color: red;
39 }
40
41 /* Dropdown content (hidden by default) */
42 .dropdown-content {
43   display: none;
44   position: absolute;
45   background-color: #f9f9f9;
46   min-width: 160px;
47   left: 0;
48   top: 100%;
49 }
50
51 /* Links inside the dropdown */
52 .dropdown-content a {
53   float: none;
54   color: black;
55   padding: 12px 16px;
56   text-decoration: none;
57   display: block;
58   text-align: left;
59 }
60
61 /* Add a grey background color to dropdown links on hover */
62 .dropdown-content a:hover {
63   background-color: #ddd;
64 }
65
66 /* Show the dropdown menu on hover */
67 .dropdown:hover .dropdown-content {
68   display: block;
69 }
```

3. Anonymous Chatting:

```
1  <div class="tawk-card tawk-card-inverse tawk-card-xsmall tawk-footer tawk-flex-none"
2   style="border-radius: 0px;"><div id="jrs2bmhkf0s81656250594716" class="tawk-text-center
3   |   |   tawk-padding-small"><a id="g3169i077nd81656250594716" tabindex="-1"></a><a
4   |   |   id="ggl65nfj65ao1656250594716" tabindex="-1"></a><a
5   |   |   id="ocititpbglmg1656250594716" href="https://www.tawk.to/?utm_source=visitor-widget&utm_medium=link&utm_campaign=referral&utm_term=5ef6d0189e5f6944229165e9" class="tawk-branding" style="color: □rgb(79, 79, 79); font-size: 0.75em; font-weight: 400; text-decoration: none; padding: 0.5em;"> Chat  by <span class="tawk-text-bold"> tawk.to </span></a><a
6   |   |   id="p8jgv6dfqp081656250594716" tabindex="-1"></a></div><!----><!---->
7   |   |   </div>
```