Semester Project Progress Report

on

Honeypots: Tracking Hackers

Submitted in partial fulfillment for award of

BACHELOR OF TECHNOLOGY

Degree

In

COMPUTER SCIENCE & ENGINEERING

2022-2023

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November 2022

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ISO 9001:2015 Certified

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Project Progress Report

1. Course : Bachelor of Technology
2. Semester : VIIth
3. Branch : Computer Science & Engineering
4. Project Title : HoneyPots: Tracking Hackers
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SYNOPSIS

A honeypot is a network-attached system set up as a decoy to lure cyber attackers and detect, deflect and study hacking attempts to gain unauthorized access to information systems. The function of a honeypot is to represent itself on the internet as a potential target for attackers usually, a server or other high-value asset and to gather information and notify defenders of any attempts to access the honeypot by unauthorized users.

Honeypot systems often use hardened operating systems (OSes) where extra security measures have been taken to minimize their exposure to threats. They are usually configured so they appear to offer attackers exploitable vulnerabilities. For example, a honeypot system might appear to respond to Server Message Block (SMB) protocol requests used by the WannaCry ransomware attack and represent itself as an enterprise database server storing consumer information.

Large enterprises and companies involved in cyber security research are common users of honeypots to identify and defend against attacks from advanced persistent threat (APT) actors. Honeypots are an important tool that large organizations use to mount an active defense against attackers or for cyber security researchers who want to learn more about the tools and techniques attackers use.

The cost of maintaining a honeypot can be high, in part because of the specialized skills required to implement and administer a system that appears to expose an organization's network resources, while still preventing attackers from gaining access to any production systems.

Till now there has not been any development made in the field of intrusion and its detection. And what's more no organization has enabled itself against any kind of such intrusion as well as detection i.e.very few of them are immune against such catastrophes. The hazards of such malicious activities are numerous most prominent of them is the Data Leakage."Honeypots: Tracking Hackers" are designed to mimic systems that an intruder would like to break into but limit the intruder from having access to an entire network. If a "Honeypots: Tracking Hackers" is successful, the intruder will have no idea that s/he is being tricked and monitored. Not only this in order to ensure proper security a record of the intruder's activities is kept, so

that we; can gain insight into attack methodologies to better protect our real production systems. Proposed "Honeypots: Tracking Hackers" is a web based program to promote awareness and to stop more websites to splurge into the victims of hacking. Also give them a platform to be connected with a helping website. It should showcase support in various types of hacking, which should be motivation for preventing hacking around the globe. We are providing information throughout the world 24*7. We are providing direct interaction with the administrator. Our project provides secure access of confidential data. It becomes Easy to manage the records. Removes cost of consultation. Availability of data on a click. While developing a project, it is very important to define the category of such project. As for as this application is concern, this application can be categorized in the category of RDBMS and OOPS because this application is built to perform and deliver the primary features of RDBMS and OOPS. Various features of Database are used to maintain the database. As this application is to be built using JSP, so all the basic and primary concepts of OOPS are used. It is a web application that can be run on internet or on any other network. Its back end is RDBMS (relational database management system).

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CHAPTER 1

INTRODUCTION

The term "Honeypots: Tracking Hackers" is often understood to refer as a bait which is use to lure any inter cyber malware may it be a hacker, an eavesdropper or any worm which is roaming in search of any such information (honey).

An alternative explanation for the term is a reflection of the sarcastic term for outhouses and other methods of collecting human waste in places that lack indoor plumbing. Honey being a euphemism for such waste, which is kept in a honey pot until it is picked up by a honey wagon and taken to a disposal area. In this usage, attackers are the equivalent of flies, drawn by the stench of waste.

1.1 OBJECTIVE AND SCOPE OF THE PROJECT

In the digital arms race that is **crackers vs. administrator**, tightening the existing security holes will only force the crackers to get better, while the administrator get complacent. They get the latest and greatest piece of ready-made software, and call themselves experts. What is bound to happen in the majority of the situations is that **a company will set a tracking program and never bother to spend the time it takes to maximize its effectiveness**.

Of course, the true answer is for administrator and software programmers who actually take a little pride in their work, and do their jobs properly. Also, it would help if software companies would take some responsibility when they find security holes in their product, and to update accordingly. System administrator should also feel obligated to keep their software current, and to make sure nobody within their company is given more access than they need. Hence our project "***Honeypots: Tracking Hackers***" is the sole answer to all such problems.

Proposed "***Honeypots: Tracking Hackers***" is a web based program to promote awareness and to stop more websites to splurge into the victims of hacking. Also give them a platform to be connected with a helping website. It should showcase support in various types of hacking, which should be motivation for preventing hacking around the globe.

- We are providing information throughout the world 24*7.
- We are providing direct interaction with the administrator.

1.2 MOTIVATION

Different types of honeypot can be used to identify different types of threats. Various honeypot definitions are based on the threat type that's addressed. All of them have a place in a thorough and effective cybersecurity strategy.

Email traps or spam traps place a fake email address in a hidden location where only an automated address harvester will be able to find it. Since the address isn't used for any purpose other than the spam trap, it's 100% certain that any mail coming to it is spam. All messages which contain the same content as those sent to the spam trap can be automatically blocked, and the source IP of the senders can be added to a denylist.

A **decoy database** can be set up to monitor software vulnerabilities and spot attacks exploiting insecure system architecture or using SQL injection, SQL services exploitation, or privilege abuse.

A **malware honeypot** mimics software apps and APIs to invite malware attacks. The characteristics of the malware can then be analyzed to develop anti-malware software or to close vulnerabilities in the API.

A **spider honeypot** is intended to trap webcrawlers ('spiders') by creating web pages and links only accessible to crawlers. Detecting crawlers can help we learn how to block malicious bots, as well as ad-network crawlers.

By monitoring traffic coming into the honeypot system, we can assess:

- where the cybercriminals are coming from
- the level of threat
- what modus operandi they are using
- what data or applications they are interested in
- how well our security measures are working to stop cyber attacks

1.3 EXISTING SOFTWARE

Cowrie – Cowrie is an SSH honeypot based off an earlier favourite called Kippo. It will emulate an interactive SSH server with customisable responses to commands. Another alternative is HonSHH which sits between a real SSH server and the attacker, MiTMing the connection and logging all SSH communications.

Dionaea is a multi-protocol honeypot that covers everything from FTP to SIP (VoIP attacks). Where it really excels is for SMB decoys. It can even simulate malware payload execution using LibEmu to analyse multi-part stagers.

Honeything emulates the TR-069 WAN management protocol, as well as a RomPager web-server, with vulnerabilities. Other IoT decoys can be created by emulating embedded telnet / FTP servers, for example with BusyBox.

ConPot emulates a number of operational technology control systems infrastructure. These include protocols like MODBUS, DNP3 and BACNET. It comes with a web-server that can emulate a SCADA HMI as well.

GasPot emulates a Veeder Root Gaurdian AST that is commonly used for monitoring in the oil and gas industry.

MongoDB-HoneyProxy emulates an insecure MongoDB database. Hackers regularly scan the interwebs looking for administrators who had an ‘oops moment’ and exposed their DB to the world.

ElasticHoney emulates an ElasticSearch instance, and looks for attempted remote code execution.

1.4 PROBLEM DEFINITION

Till now there hasn't been any development made in the field of **intrusion and its detection**. And what's more no organization has enabled itself against any kind of such intrusion as well as detection i.e. very few of them are immune against such catastrophes. The hazards of such malicious activities are numerous most prominent of them is the **Data Leakage.**

*"**Honeypots: Tracking Hackers**"* are designed to mimic systems that an intruder would like to break into but **limit the intruder from having access to an entire network**. If a "Honeypots: Tracking Hackers" is successful, the intruder will have no idea that s/he is being tricked and monitored.

Not only this in order to ensure proper security **a record of the intruder's activities is kept, so that we; can gain insight into attack methodologies to better protect our real production systems.**

Honey pots are usually programs that emulate services on a designated port, but once successfully cracked, offer no real power to the attacker. The "**Honeypots: Tracking Hackers**" program will then alert the admin that an attack is in progress, and will allow the admin to track the attacker's every move. Honeypots will also show the methods the attacker is using to gain entry, and what methods the attacker is using to cover his or her tracks.

While it is often a computer, a "**Honeypots: Tracking Hackers**" can take other forms, such as files or data records, or even unused **IP address** space. A honey pot that **masquerades as an open proxy** to monitor and record those using the system as bait.

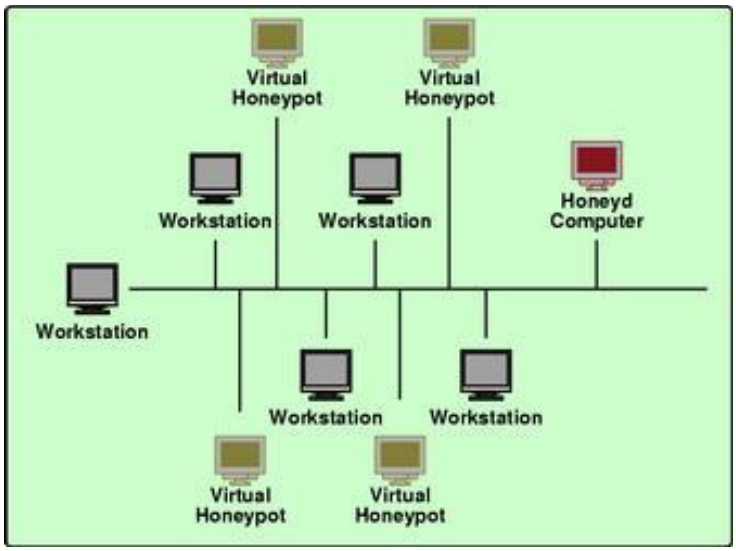


Figure 1.1 Block diagram of Honeypot System

1.5 BACKGROUND AND RELATED WORK

Most of the systems in use today, therefore, work with a set of so-called attack signatures, that describe attacking patterns in sufficient detail for identifying ongoing attacks automatically. However, the specification of such signatures usually needs to be done by experienced network security analysts by either monitoring an existing network and extracting the relevant information, this is the major loop hole in the whole process and using this glitch any outsider can or may gain access to company's relevant data.

Table. 1.1 Comparative Study of various honeypots systems

Sr.No.	Paper Name	Author	Year	Methodology
1	A survey of honeypot research: Trends and opportunities	Ronald M. Campbell, Keshnee Padayachee, Themba Masombuka	2015	Devices connected to computer networks and its threat
2	Recent Advances and Future Trends in Honeypot Research	Matthew L. Bringer, Christopher A. Chelmecki, and Hiroshi Fujinoki	2015	Honeypots, Alarm system, Computer hacking, Computer crime, Computer security
3	Honeypot Software and Data Analysis	Marcin Nawrocki, Matthias Wahlisch, Thomas C. Schmidt	2016	Extensive overview on honeypots. This includes not only honeypot software but also methodologies to analyse honeypot data.
4	Honeypot: A Trap for Attacker	Savita Paliwal	2017	Low level interaction honeypot, medium level interaction honeypot, high level interaction honeypot and functions of honeypots.

5	Honeypot: Tracking Hackers	Lance Spitzner, Addison-Wesley	2018	Tracking Hackers methods
6	Honeypot for Cyber security Threat Intelligence	Ren Rui Tan, Simon Eng, Casey How and Paul HJ Wu	2022	SME, Cybersecurity Threat Intelligence, Web Honeypot; Threat Intelligence Dashboard First Section

Ronald M. Campbell et. Al. [1] Studied that the number of devices connected to computer networks is increasing daily, and so is the number of network-based attacks. A honeypot is a system trap that is set to act against unauthorised use of information systems. The objective of this study was to survey the emergent trends in extant honeypot research with the aims of contributing to the knowledge gaps in the honeypot environment.

Matthew L. Bringer et. Al. [2] Summarizes 60 papers that had significant contribution to the field. In reviewing the literature, it became apparent that the research can be broken down into five major areas: 1. new types of honeypots to cope with emergent new security threats, 2. utilizing honeypot output data to improve the accuracy in threat detections, 3. configuring honeypots to reduce the cost of maintaining honeypots as well as to improve the accuracy in threat detections, 4. counteracting honeypot detections by attackers, and 5. legal and ethical issues in using honeypots.

Marcin Nawrocki et. Al. [3] This research includes not only honeypot software but also methodologies to analyse honeypot data.

Savita Paliwal et. Al. [4] As we have studied this paper introduces Honeypot, a new technology for Network Security. The paper deals with the basic aspects of Honeypots, their use in modern computer networks and their implementation in educational environments. It explains the different types i.e Production honeypot, Research honeypot, low level interaction honeypot, medium level interaction honeypot, high level interaction honeypot and functions of honeypots.

Lance Spitzner et. Al. [5] From the basics of shrink-wrapped honeypots that catch script kiddies to the detailed architectures of next-generation honeynets for trapping more sophisticated bad guys, this book covers it all....This book really delivers new information and insight about one of the most compelling information security technologies today.

Ren Rui Tan et. Al. [6] Studied that most of the Small and Medium-sized Enterprises (SMEs) have limited resources to guard their IT infrastructures because of high upfront costs and fully engaged manpower, resulting in lack of focus on cybersecurity. Though cybersecurity threat intelligence derived from honeypots can help businesses to mitigate cybersecurity risks, current implementations target huge enterprises that have in-house cybersecurity teams to digest the intelligence and implement countermeasures against emerging threats. In this paper, a honeypot mimicking SME web portals will be setup to acquire insights into cyberattacks.

CHAPTER 2

HARDWARE AND SOFTWARE REQUIREMENT

For software development very first and essential requirement is the availability of software and hardware. The software requires the following software and hardware for its successful implementation.

2.1 SOFTWARE REQUIREMENT

2.1.1 CLIENT SIDE (RECOMMENDED)

Any Operating System with Web Browser.
Internet or LAN connection

2.1.2 SERVER SIDE (RECOMMENDED)

Operating System	:	WINDOWS XP /98/2000/WIN 7/LINUX OR ANY OS
Scripting Language	:	JAVA SCRIPT
Front-End Language	:	JSP AND JDK1.6
Back-End	:	SQL-SERVER 2000
Mark-up Language	:	HTML4.0, DHTML
Web-Server	:	WEB-LOGIC or TOMCAT

2.2 HARDWARE REQUIREMENT

2.2.1 CLIENT SIDE (RECOMMENDED)

Processor	:	Pentium-4 or above
RAM	:	1GB
Hard Disk	:	160GB
Keyboard	:	Any
Mouse	:	Any

2.2.2 SERVER SIDE (MINIMUM)

Processor	:	Intel-C2D
RAM	:	4 GB
Hard Disk	:	500 GB
Keyboard	:	Any
Mouse	:	Any

CHAPTER 3

SDLC METHODOLOGIES

SDLC stands for Software Development Life Cycle models, and these are a variety of processes of design, development and testing that are used in the industry today. While there's no best or standout SDLC methodology, it's essential to be across the most common models that can be applied to projects within a company.

3.1.1 AGILE METHODOLOGY

Agile is a combination of an incremental and iterative approach, where the product is released on an ongoing cycle then tested and improved at each iteration. Fast failure is encouraged in agile methodology: the theory is that if we fail fast and early, we can solve minor issues before they grow into major issues.

Agile is one of the most common methodologies out there today but it's technically more of a framework than a distinct model. Within Agile, there are sub-models in place such as extreme programming (XP), Rapid Application Development (RAD), Kanban and Scrum methodology.

3.1.2 WATERFALL METHODOLOGY

The Waterfall methodology is one of the oldest surviving SDLC methodologies. It follows a straightforward approach: the project development team completes one phase at a time, and each phase uses information from the last one to move forward.

While this methodology does make the needs and outcomes clear, and gives each stage of the model a well-defined starting and ending point, there are downsides in Waterfall's rigidity. In fact, some experts believe the Waterfall model was never meant to be a working SDLC methodology for developing software because of how fixed it is in nature. Because of this, SDLC Waterfall methods are best used for extremely predictable projects.

3.1.3 DEV-OPS

DevOps is used by some of the biggest companies out there, such as Atlassian. A hybrid of Agile and Lean, DevOps evolved from the growing need for collaboration between operations and development teams throughout the SDLC process. In DevOps, both developers and operations teams work together to accelerate and innovate the deployment and creation of software. There are small but frequent updates and DevOps encourages continuous feedback, process improvement and the automation of previously manual processes.

DevOps methodology saves time and improves communication because both operations and development teams get to know about the potential obstructions at the same time. However, DevOps may open software to more security issues, as this approach generally favors speed over security.

3.1.4 SPIRAL

As one of the most flexible SDLC models out there, the Spiral model is used by the world's leading software companies. Spiral enables project teams to build a highly customized product. Spiral methodology passes through four phases repeatedly until the project is finished: planning, risk analysis, engineering, and evaluation.

The biggest difference between Spiral and other methodologies is that it is focused on risk analysis, with each iteration it focuses on mitigating potential risks. The model also emphasizes customer feedback, and as the prototype build is done in small increments, cost estimation becomes easier.

3.1.5 ITERATIVE

The Iterative model is all about repetition. Instead of starting out with a comprehensive overview of the requirements, development teams build the software piece by piece and identify further requirements as they go along. As a result, each new phase in the Iterative model produces a newer, more-refined version of the software under development.

Iterative allows developers and testers to identify functional or design flaws early, and can easily adapt to the ever-changing needs of the client. Like Spiral, Iterative suits larger projects and requires more management and oversight to work well.

3.2 HOW IT AFFECT OUR MODEL

Honeypot is a complete package of all hacker tracking components. A honey pot is a trap set to detect, deflect, or in some manner counteract attempts at unauthorized use of information systems. Generally it consists of a computer, data, or a network site that appears to be part of a network, but is actually isolated, (un) protected, and monitored, and which seems to contain information or a resource of value to attackers. Iterative model applies to our project as we created feedback models. We created small models first such as admin module, login/sign-up module, customer module, etc and then tested separately. From those feed backs, we resolved issues and then create new models. The basic idea behind this method is to develop a system through repeated cycles (iterative) and in smaller portions at a time (incremental).

CHAPTER 4

SOFTWARE REQUIREMENT SPECIFICATION AND ANALYSIS

The system requirements were analysed and defined before the development of the project began. The requirements were gathered from the stakeholders, which in this case, are the placement officers. The requirements were analysed and classified into three categories:

1. Functional requirements
2. Non-functional requirements
3. Technical requirements

Functional requirements are the requirements which define what the system should do. In this case, the functional requirements are as follows: -

1. The system should be able to keep track of all the hackers and their attacks.
2. The system should be able to keep track of all the users and their activities.
3. The system should be able to generate reports.
4. The system should be able to generate reports of all activities of users.

Non-functional requirements are the requirements which define how the system should work. In this case, the non-functional requirements are as follows:

1. The system should be user-friendly.
2. The system should be able to handle a large amount of data.
3. The system should be scalable.
4. The system should be secure.
5. The system should be available 24/7.

Technical requirements are the requirements which define what technology should be used to develop the system.

In this case, the technical requirements are as follows:

1. Any Operating System
2. Web Browser.

3. Internet or LAN connection

4.1 OBJECTIVE

In the digital arms race that is crackers vs. administrator, tightening the existing security holes will only force the crackers to get better, while the administrator get complacent. They get the latest and greatest piece of ready-made software, and call themselves experts. What is bound to happen in the majority of the situations is that a company will set a tracking program and never bother to spend the time it takes to maximize its effectiveness.

Of course, the true answer is for administrator and software programmers who actually take a little pride in their work, and do their jobs properly. Also, it would help if software companies would take some responsibility when they find security holes in their product, and to update accordingly. System administrator should also feel obligated to keep their software current, and to make sure nobody within their company is given more access than they need. Hence our project “Honeypots: Tracking Hackers” is the sole answer to all such problems.

4.2 SCOPE

This website also provides full sort of security regarding the information of the customers who are linked to this website. In our view website will be successful way in spreading the awareness of “Honeypots: Tracking Hackers” among the customers.

This software can be easily upgraded in the future. And also include many more features for existing system. It is connected with the network for easily retrieved data and many location or many districts or cities in different states. Report on the different basis will be easily created on the demand.

4.3 PORTABILITY

Portability usually has 3 dimensons: Vertical (Development lifecycle), Horizontal (Platform/provider migration) or Deep (Replication). Vertical portability refers to consistency of software throught whole lifecycle, which can be ensured with Infrastructure as code. Horizontal stands for platform/dependency flexibility. With good Dependency management,

single sourcing and good platform support plan, you can master the Horizontal dimension. Deep means how scalable and replicable your code/architecture/software is.

4.4 RELIABILITY

Software Reliability is an essential connect of software quality, composed with functionality, usability, performance, serviceability, capability, installability, maintainability, and documentation. Software Reliability is hard to achieve because the complexity of software turn to be high. While any system with a high degree of complexity, containing software, will be hard to reach a certain level of reliability, system developers tend to push complexity into the software layer, with the speedy growth of system size and ease of doing so by upgrading the software.

4.5 DATA INTEGRITY

Data integrity is one of the most important aspect of our Honeypots: Tracking Software.
As we have created a software which makes the information systems of any organization attack preventive and tracking.
Using honeypots we can track the details of attackers computer system like which OS is he using, what is his mac address, what is his ip, etc.
By using honeypots, even if attacker tries to steal or modify our database he will not be able to do so, as Honeypots main feature is Data Integrity.

CHAPTER 5

RISK ASSESSMENT

Risk analysis in software testing is an approach to software testing where software risk is analyzed and measured. Traditional software testing normally looks at relatively straight forward function testing (e.g. 2 + 2 = 4). A software risk analysis looks at code violations that present a threat to the stability, security, or performance of the code.

Software risk is measured during testing by using code analyzers that can assess the code for both risks within the code itself and between units that must interact inside the application. The greatest software risk presents itself in these interactions. Complex applications using multiple frameworks and languages can present flaws that are extremely difficult to find and tend to cause the largest software disruptions.

The main risks in this applications involve -

1. This project does not Edit the date of connection or store the date of transfer in case of connection transfer.
2. System date for the project is like as backbone for the human, i.e. proposed system is depends on system date so it must be correct.

5.1 RISK ASSESSMENT OF HONEYPOTS FROM DEVELOPER PERSPECTIVE

The main risks involved from the developer perspective are –

1. They can introduce risk to your environment. By risk, we mean that a honeypot, once attacked, can be used to attack, infiltrate, or harm other systems or organizations. Different honeypots have different levels of risk.

2. Some introduce very little risk, while others give the attacker entire platforms from which to launch new attacks. The simpler the honeypot, the less the risk. For example, a honeypot that merely emulates a few services is difficult to compromise and use to attack other systems.

3. In contrast, a honeypot that creates a jail gives an attacker an actual operating system with which to interact. An attacker might be able to break out of such a cage and then use the honeypot to launch passive or active attacks against other systems or organizations.

4. Risk is variable, depending on how one builds and deploys the honeypot.

5. Because of their disadvantages, honeypots cannot replace other security mechanisms such as firewalls and intrusion detection systems. Rather, they add value by working with existing security mechanisms. They play a part in your overall defenses.

5.2 RISK ASSESSMENT OF HONEYPOTS FROM USER PERSPECTIVE

The main risks involved from the user perspective are –

1. First risk of using honeypots is that they can lure attackers. This is because once attackers have accessed a honeypot; they may be motivated to instigate further attacks.
2. Attackers are typically relentless and if they discover that they have been duped, they are not likely to stop until they have gained access to the real thing.
3. The other risk of using honeypots is that they just add to the complexity of a network design. This means that the additional resources will incur extra costs through maintenance. Honeypots must also be kept up and running for them to be able to work effectively.
4. Any activity towards them must also be responded to and this adds to the tediousness of network maintenance. Yet another disadvantage is that a honeypot itself can be used as a launching point for attacks against either your network or another network. If this happens, the organization may find itself in a legal tussle with the affected parties.

CHAPTER 6

USECASE / ACTIVITY/ ER / DFD DIAGRAMS

6.1 USE CASE DIAGRAM

Figure 6.1 Use Case Diagram

6.2 ACTIVITY DIAGRAMS

6.2.1 LOGIN MODULE

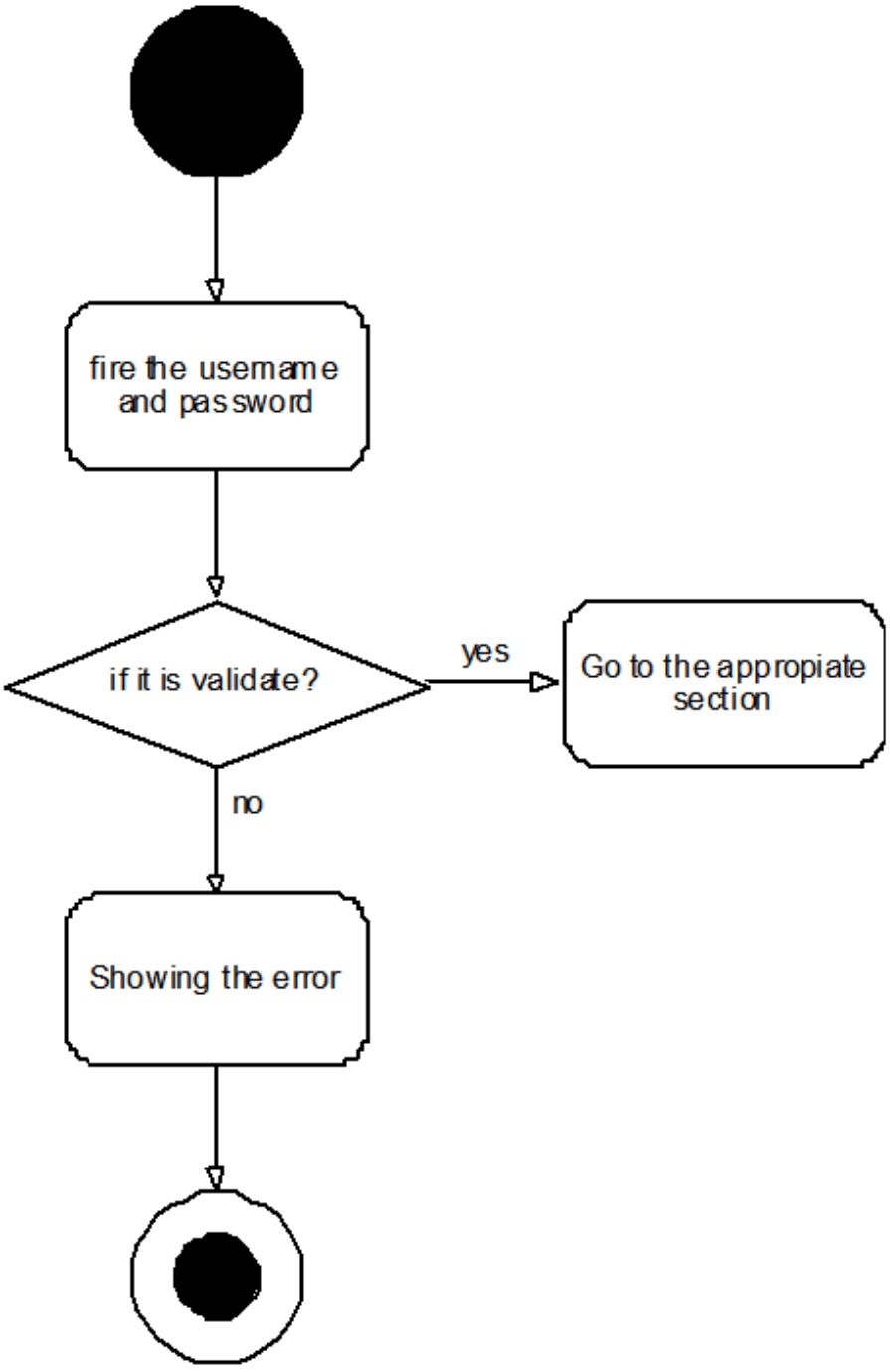


Figure 6.2 Login Module

6.2.2 ADMIN MODULE

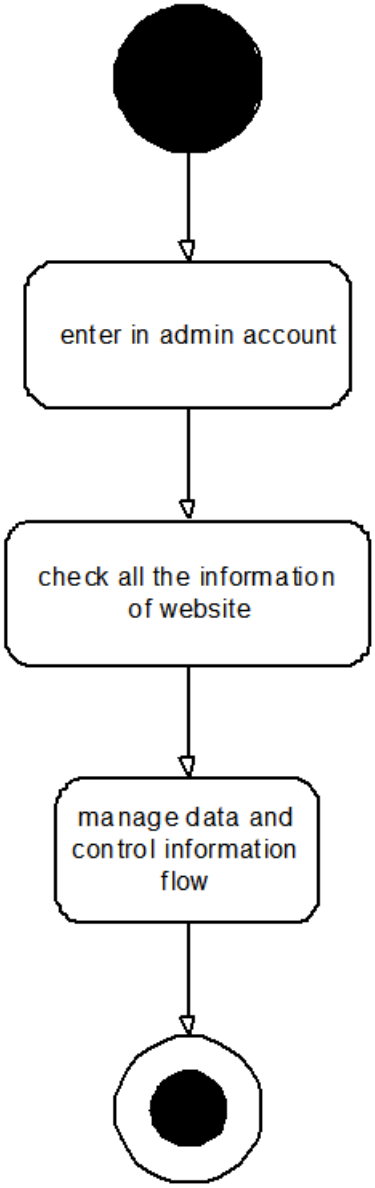


Figure 6.3 Admin Module

6.2.3 HACKER MODULE

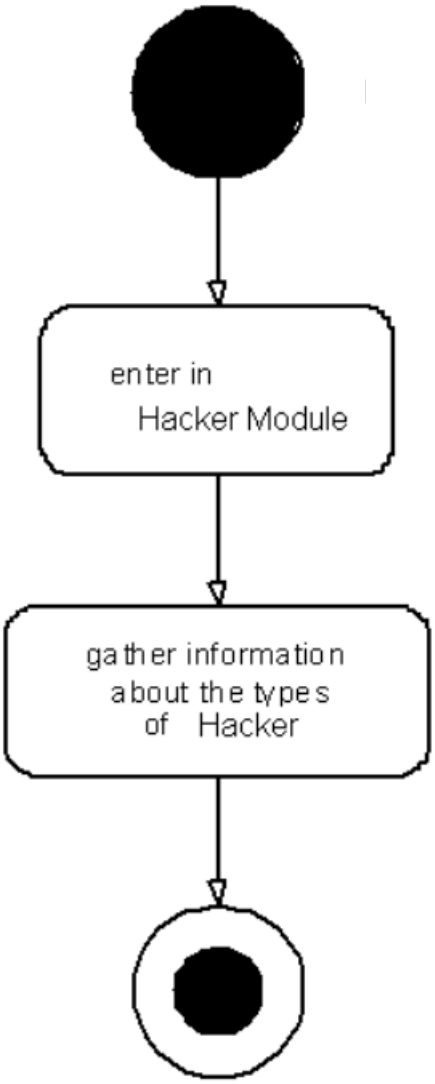


Figure 6.4 Hacker Module

6.2.4 CUSTOMER MODULE

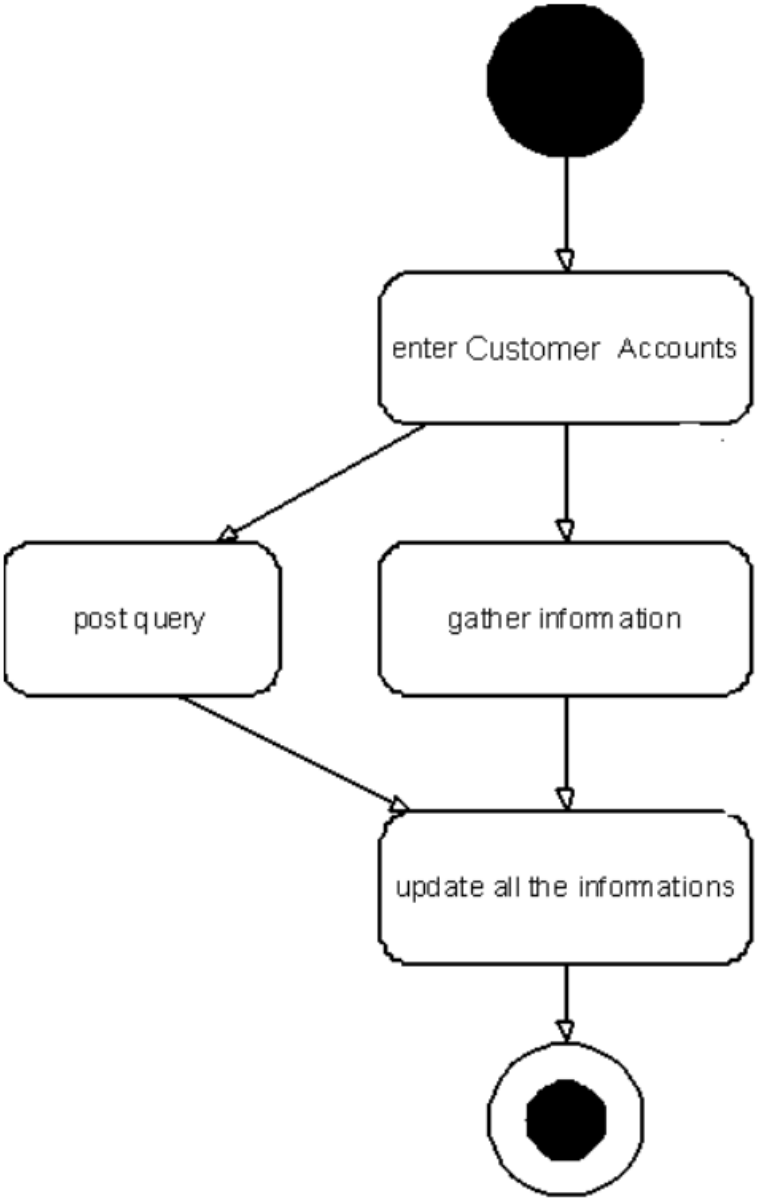


Figure 6.5 Customer Module

6.3 ER DIAGRAM

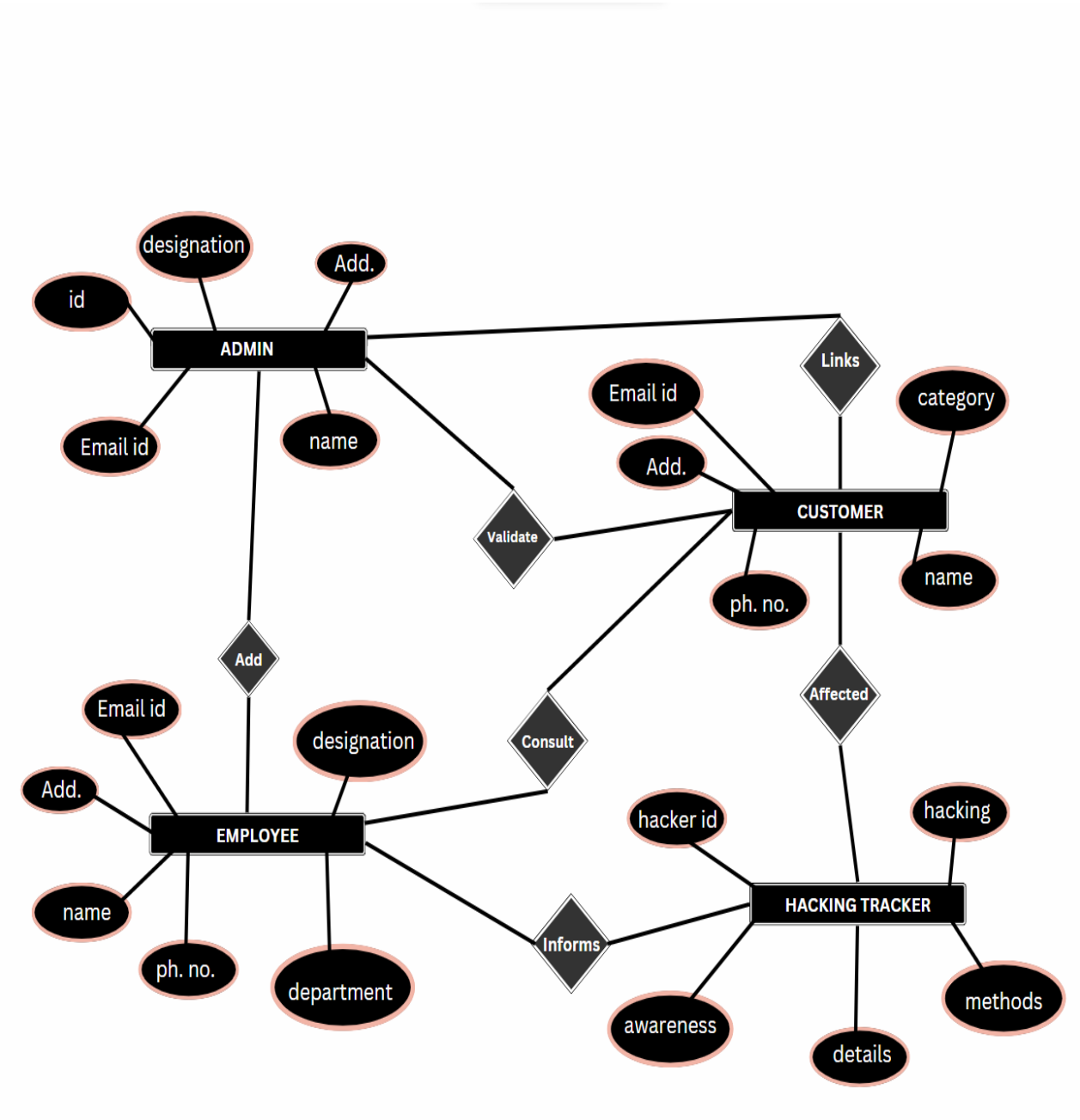


Figure 6.6 ER Model for Honeypots: Tracking Hackers

6.4 DFD DIAGRAMS

6.4.1 ZERO LEVEL DFD FOR "HONEYPOTS: TRACKING HACKERS"

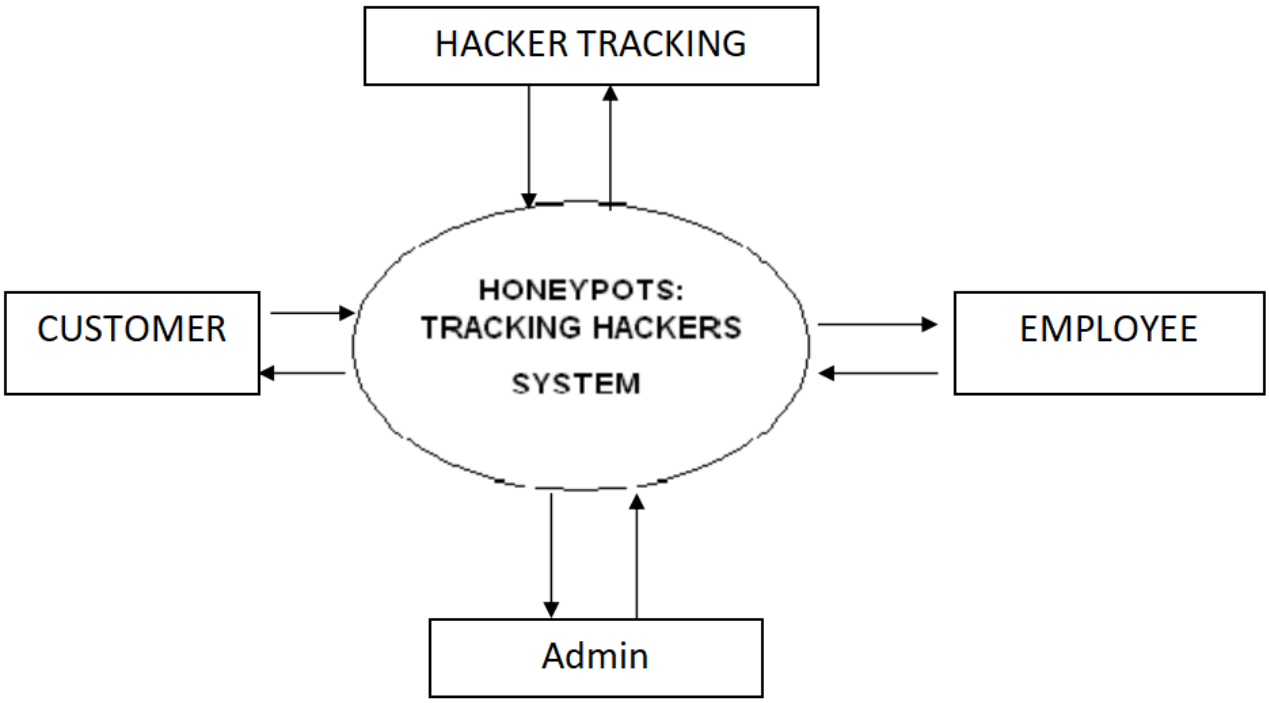


Figure 6.7 Zero-Level DFD

6.4.2 ONE LEVEL DFD FOR "HONEYPOTS: TRACKING HACKERS"

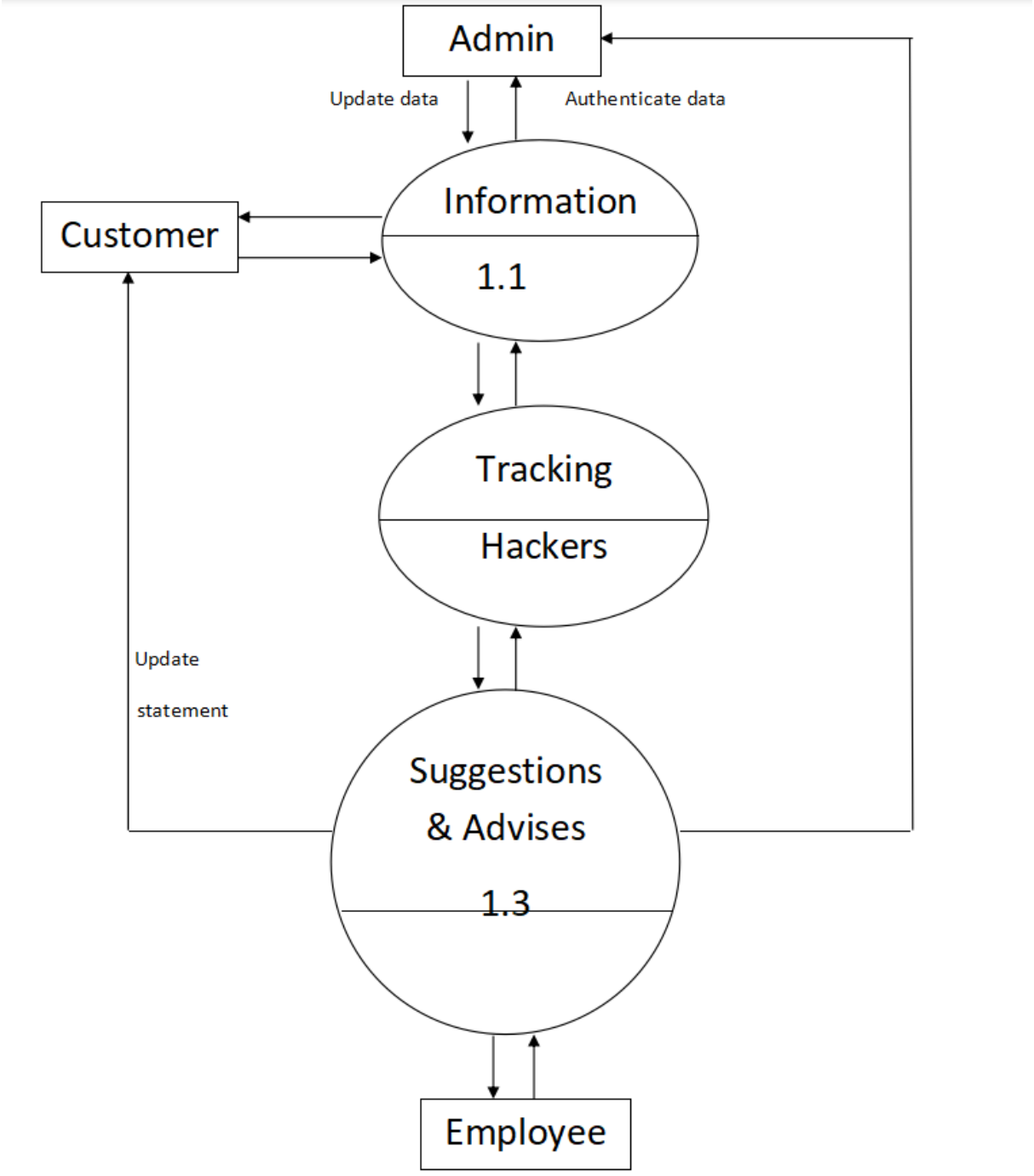


Figure 6.8 One-Level DFD

6.4.3 TWO LEVEL DFD FOR "HONEYPOTS: TRACKING HACKERS"

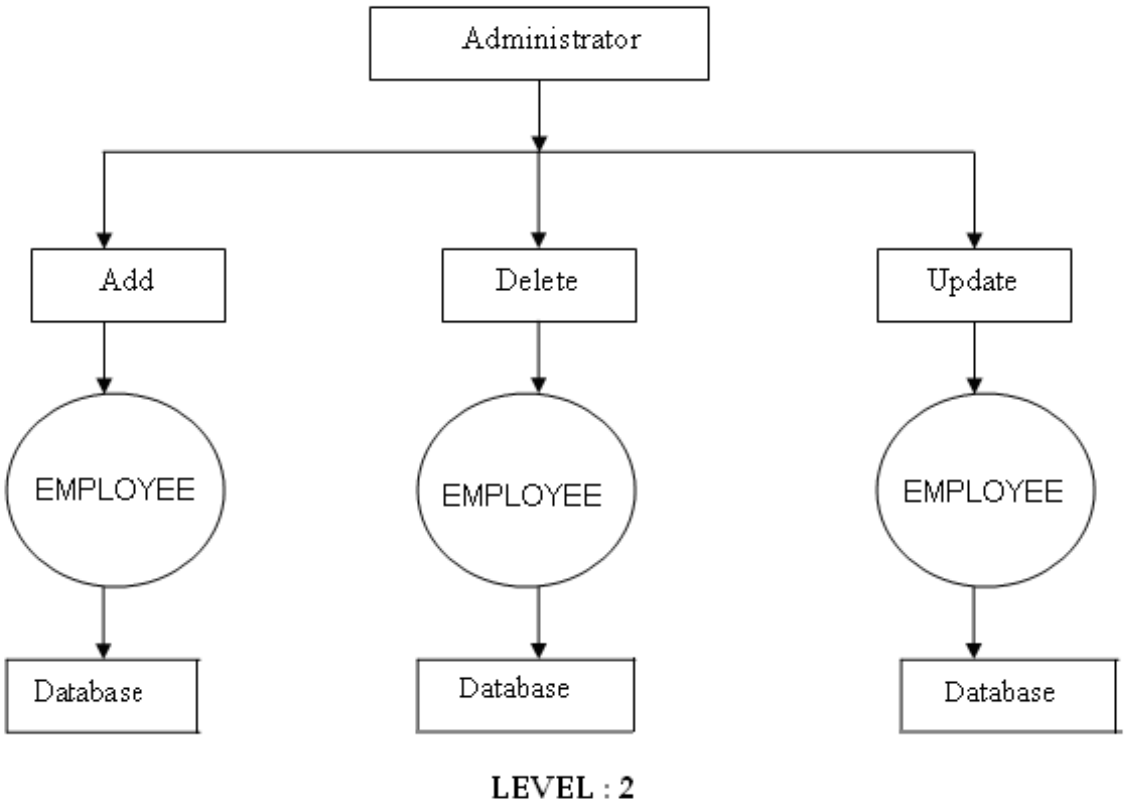


Figure 6.9 Two-Level DFD for Administrator module

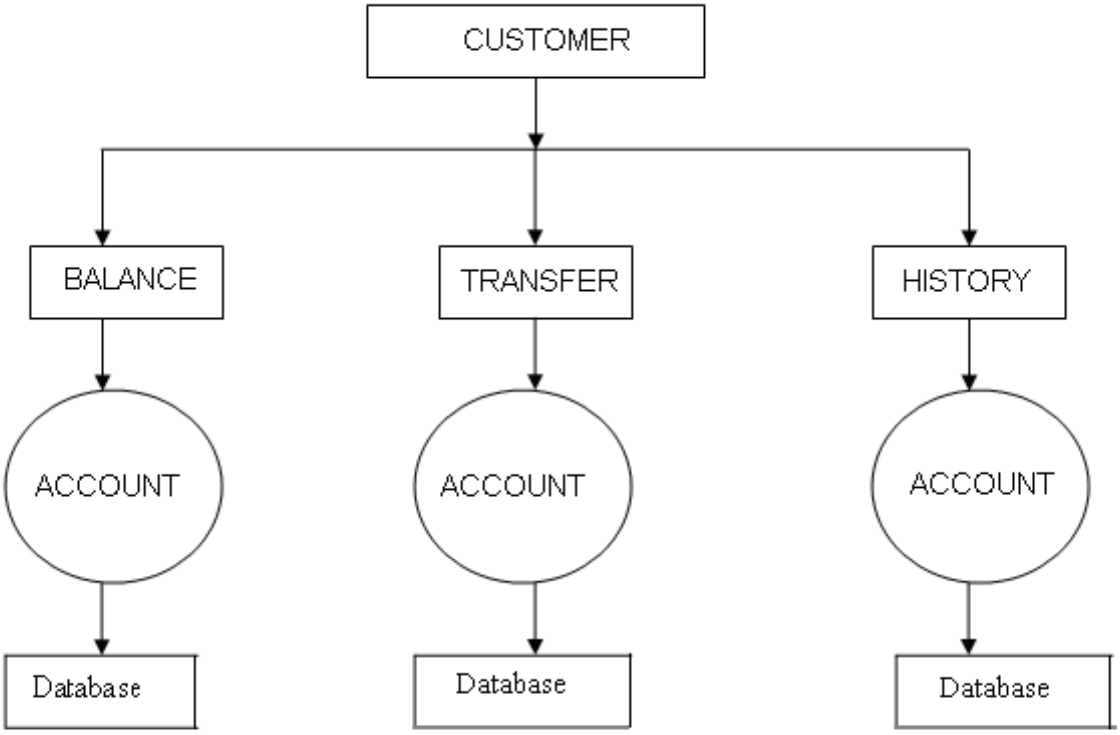


Figure 6.10 Two-Level DFD for Customer module

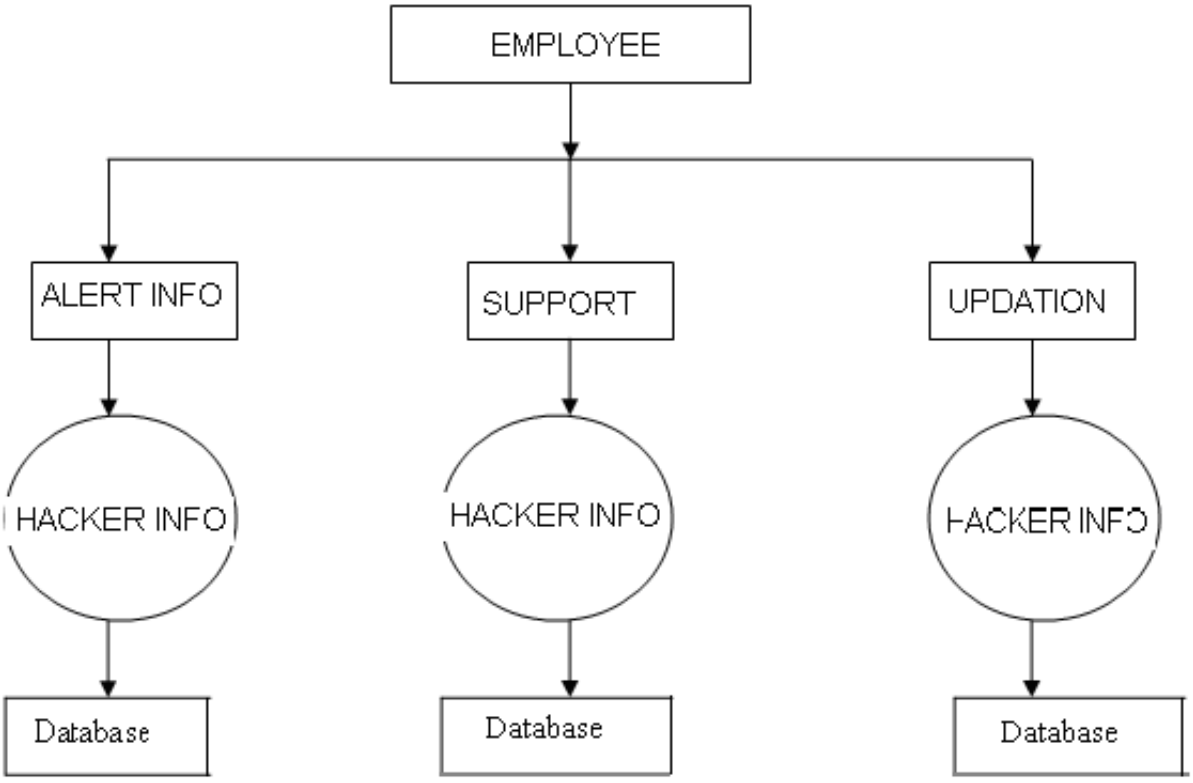


Figure 6.10 Two-Level DFD for Employee module

CHAPTER 7

PROJECT MODULES DESIGN / DATABASE TABLES

- Login Module
- Admin Module
- Customer Module
- Hacker Tracking Module
- Employee Module

7.1.1 LOGIN MODULE:

The system has two types of user logins. ADMIN is able to see all the queries and the referred solutions or remedies. It manages all the information uploaded and puts curb on it.

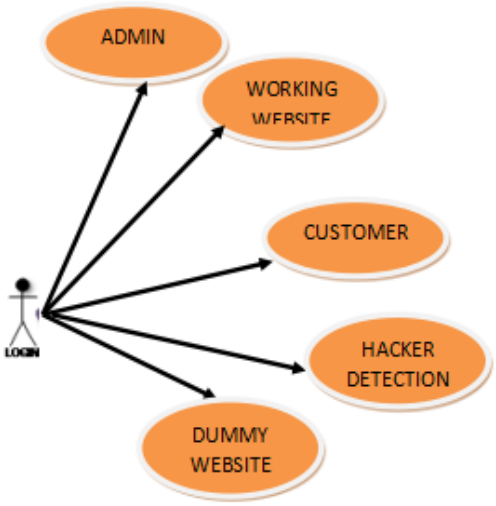


Figure 7.1 Login Module

7.1.2 ADMIN MODULE:

It includes:-

- Administrator designation

- Control over the database
- Updating information
- Authenticating customers

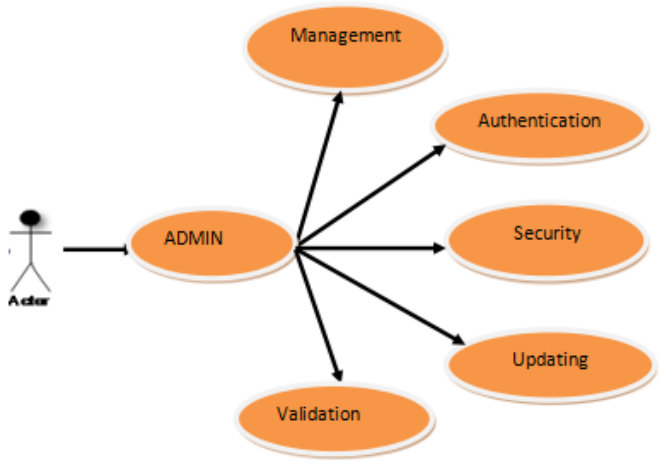


Figure 7.2 Admin Module

7.1.3 CUSTOMER MODULE:

It includes:-

- Customer login and information gathering
- Retrieving queries.
- Posting experiences

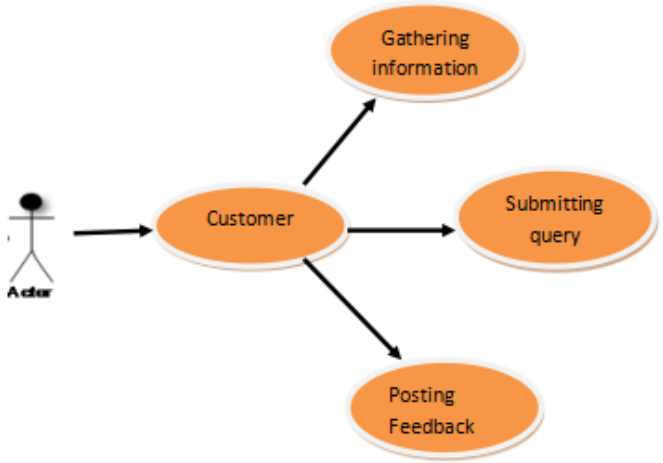


Figure 7.3 Customer Module

7.1.4 HACKER TRACKING MODULE:

It includes:-

- Hacker detail information

- Hacking information and precautions
- Prevention and other references

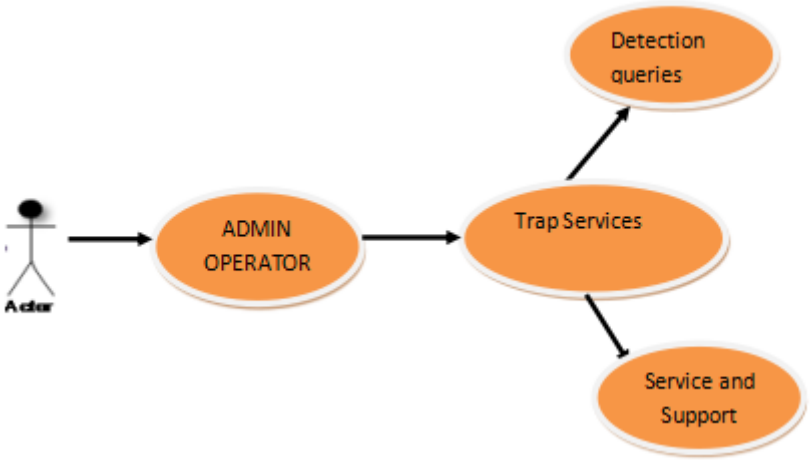


Figure 7.4 Hacker Tracking Module

7.1.5 EMPLOYEE MODULE:

This module has information like:-

- Organization information
- Event information
- Promotion of policies
- Guidance and suggestions

7.2 DATABASE TABLES

7.2.1 TABLE LOGIN

(

l_id varchar2(20) not null primary key,

m_password varchar2(20),

login_type varchar2(20),

reg_date date

);

7.2.2 TABLE ADMINISTRATOR

(

Admin_ID number (8) primary key,

l_id varchar2(20),
FirstName varchar2(30),
MiddleName varchar2(30),
LastName varchar2(30),
cellno varchar2(15),
Email varchar2(50),
AddressLine1 varchar2(50),
AddressLine2 varchar2(50),
City varchar2(20),
States varchar2(20),
Country varchar2(20)
);

7.2.3 TABLE CUSTOMER

(
ac_id number (8) not null,
accno varchar2(10)not null primary key,
cname1 varchar2(20),
cname2 varchar2(20),
cname3 varchar2(20),
vaddress1 varchar2(100),
ccity varchar2(50),
cstate varchar2(50),
ccountry varchar2(50),
cpincode varchar2(20),
l_id varchar2(20) not null ,
cpassword varchar2(20),
ccontactno varchar2(20),
cDOBdate varchar2(20),
cDOBmonth varchar2(20),
cDOByear varchar2(20),
cemail varchar2(100),
coccupation varchar2(20),
annualincome varchar2(20),

caccounttype varchar2(20),
cDDno varchar2(20),
DDamount number (8**)**
);

7.2.4 TABLE INFORMATION

(
inf_id number (8) not null primary key,
l_id varchar2(20) not null ,
password varchar2(20),
accno varchar2(10) not null ,
balance number (8)
);

7.2.5 TABLE HISTORY

(
h_id number (8) primary key,
dated varchar2(20),
type varchar2(20),
l_id varchar2(20) not null ,
accno1 varchar2(10) not null ,
amount number (8),
accno2 varchar2(10) not null ,
balance number (8)
);

7.2.6 TABLE HACKERINFO

(
HIT number (8) primary key,
HID varchar2(50) not null,
LType varchar2(50),
Pass varchar2(50),
RequestMethod varchar2(100),
RequestURL varchar2(100),

RequestProtocol varchar2(100),
ServerName varchar2(100),
RequestPath varchar2(100),
ServerPort varchar2(100),
RemoteAddress varchar2(100),
RemoteHost varchar2(100),
Locale varchar2(100),
UserAgent varchar2(500),
Status varchar2(10),
Dated date
);

CHAPTER 8

PROJECT SNAPSHOTS

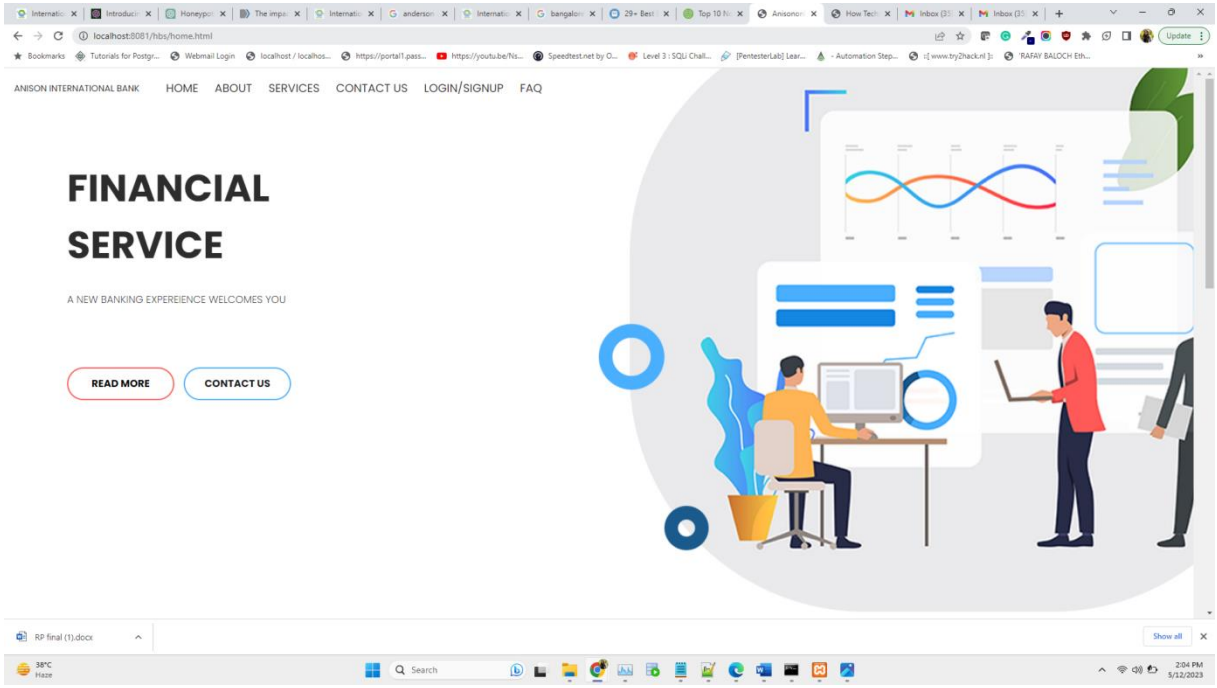


Figure 8.1 Home Page

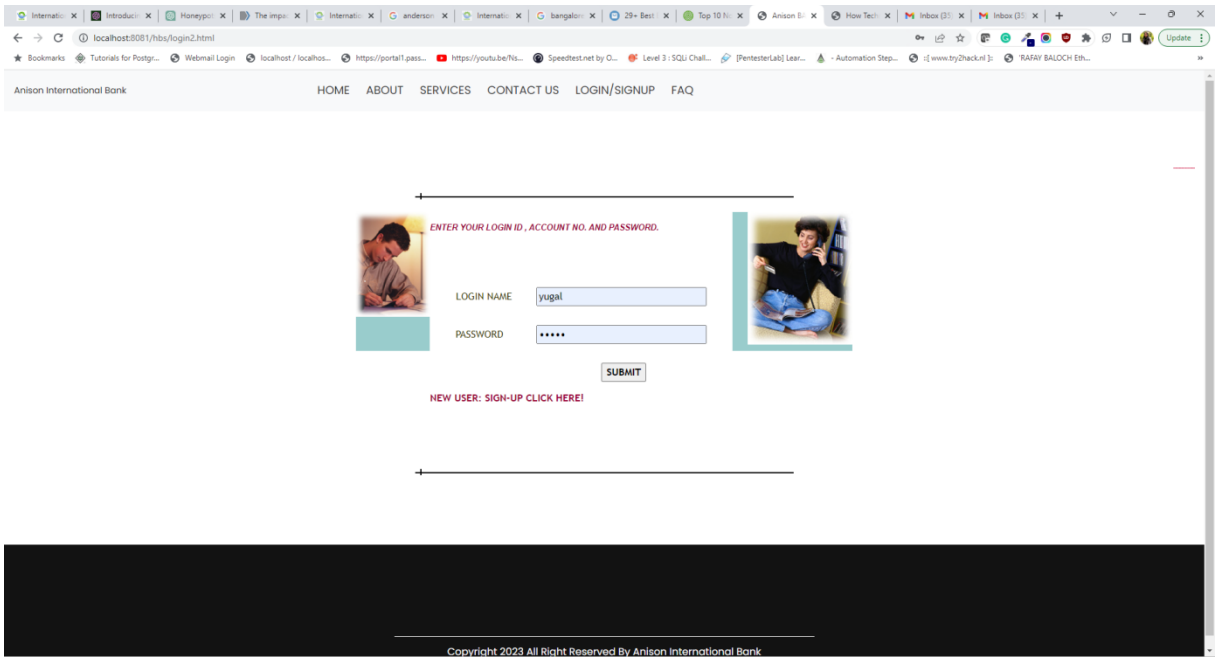


Figure 8.2 Login Page

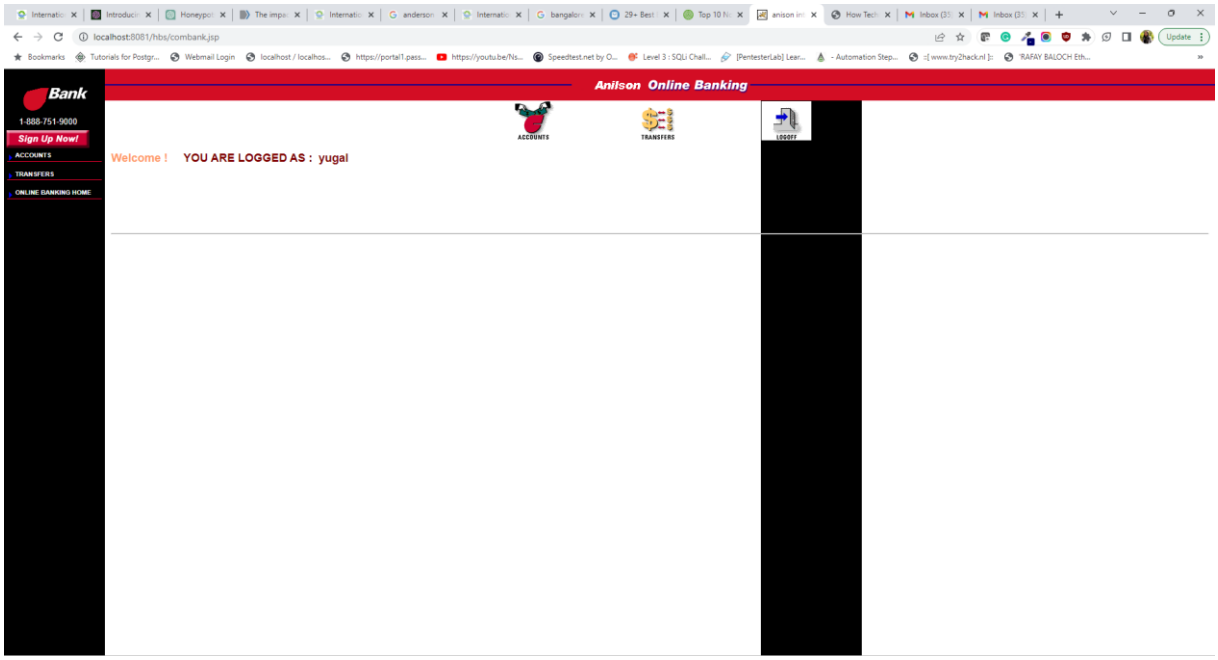


Figure 8.3 Logged-in Page

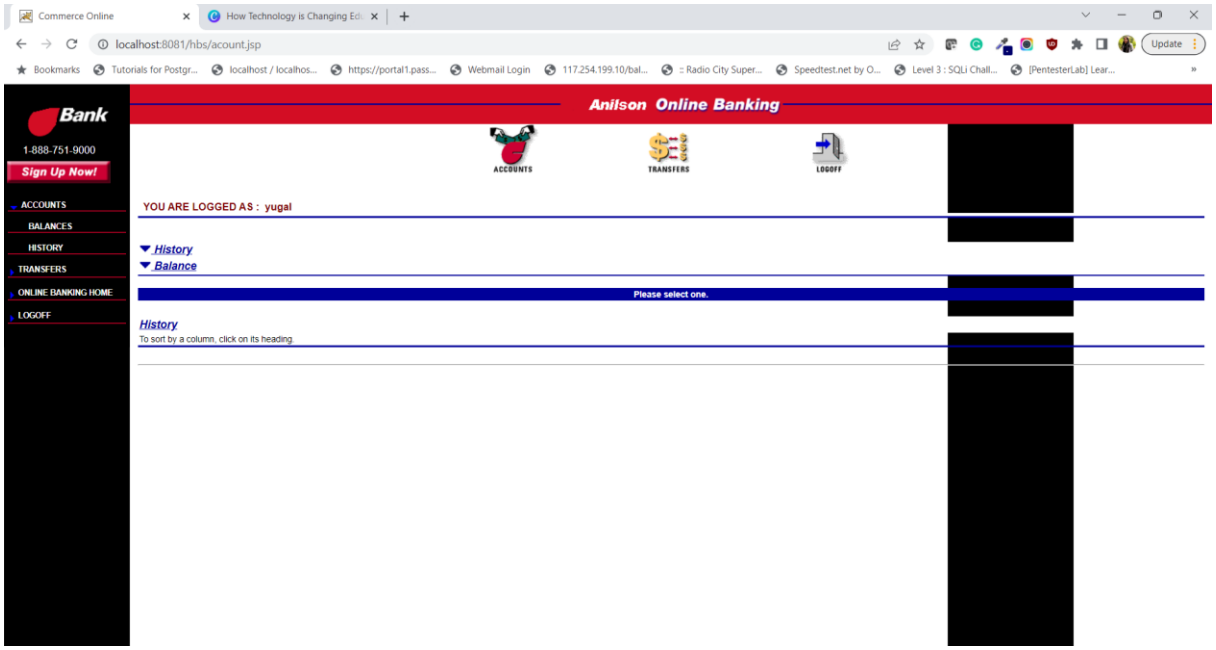


Figure 8.4 Account Information Page

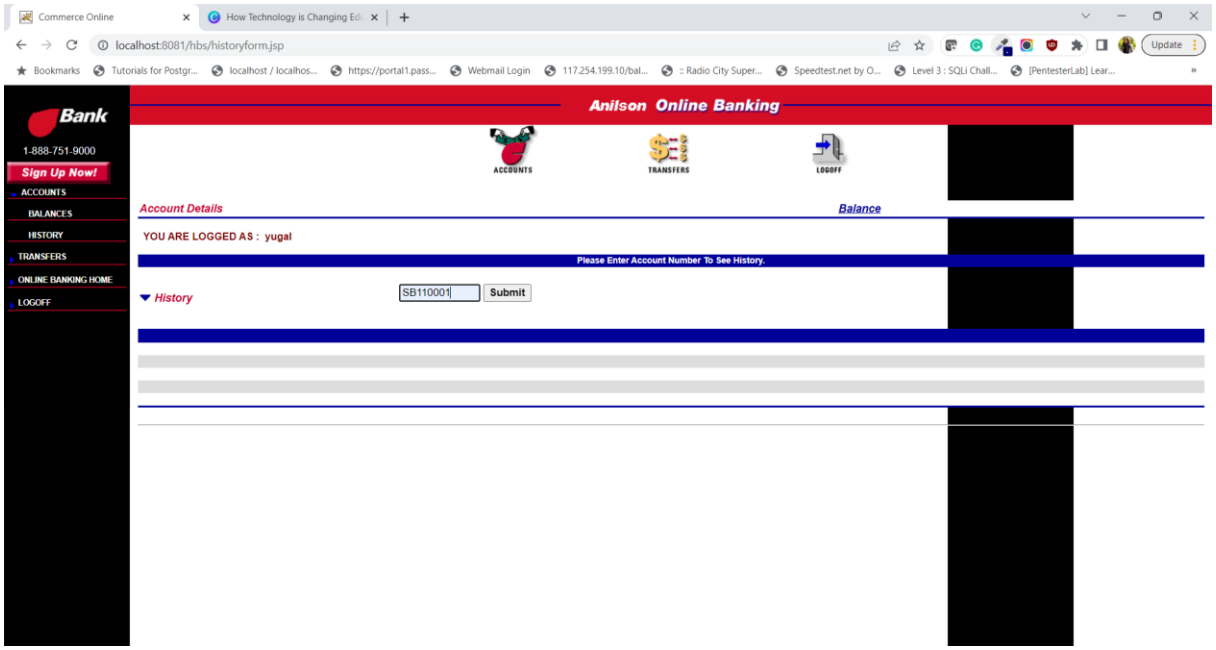


Figure 8.5 History Page

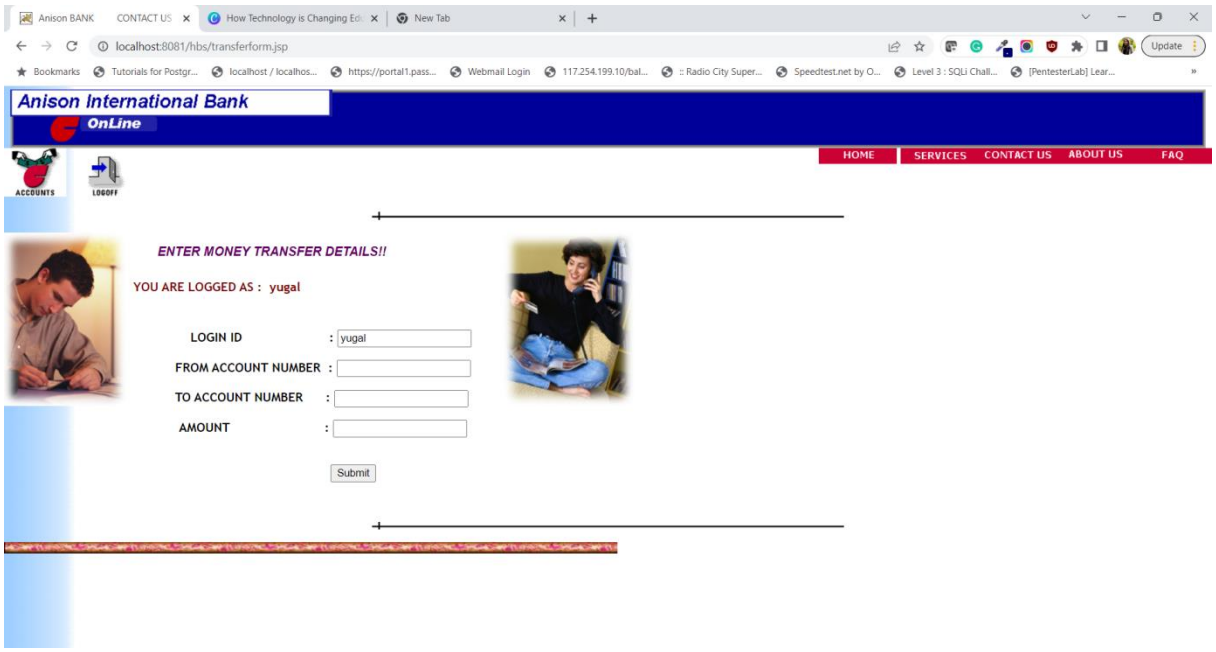


Figure 8.6 Transaction Page

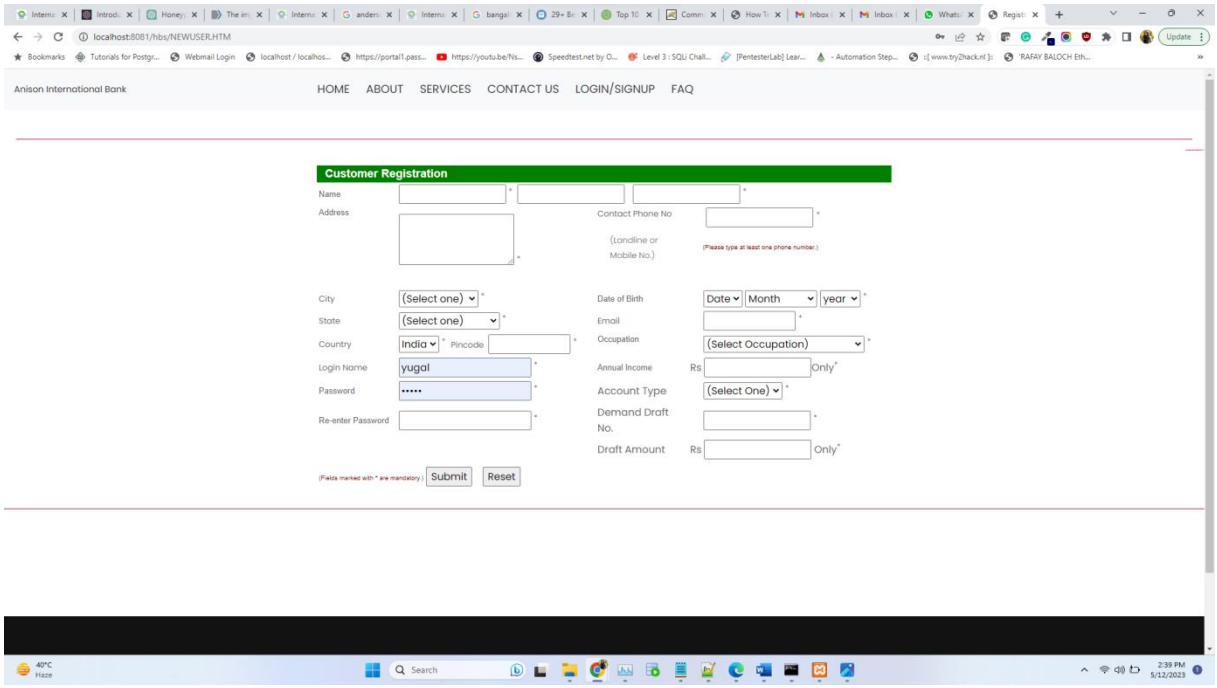
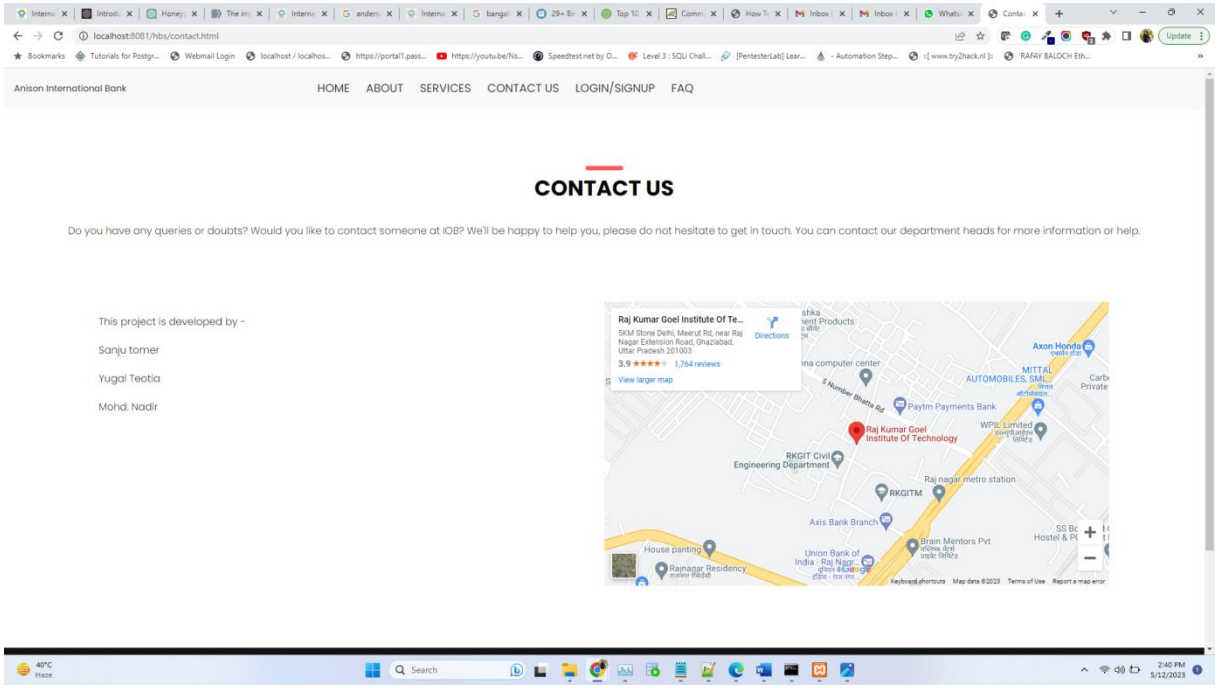


Figure 8.7 Registration Page



Fiagure 8.8 Contact Page

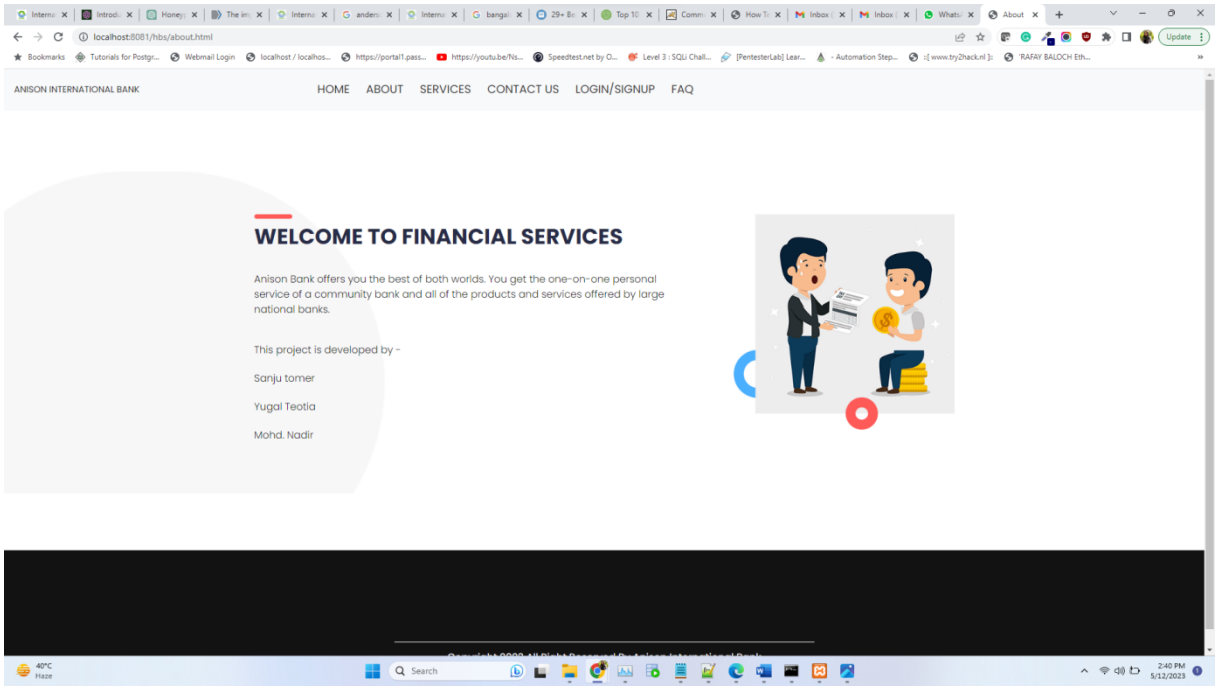


Figure 8.9 About Page

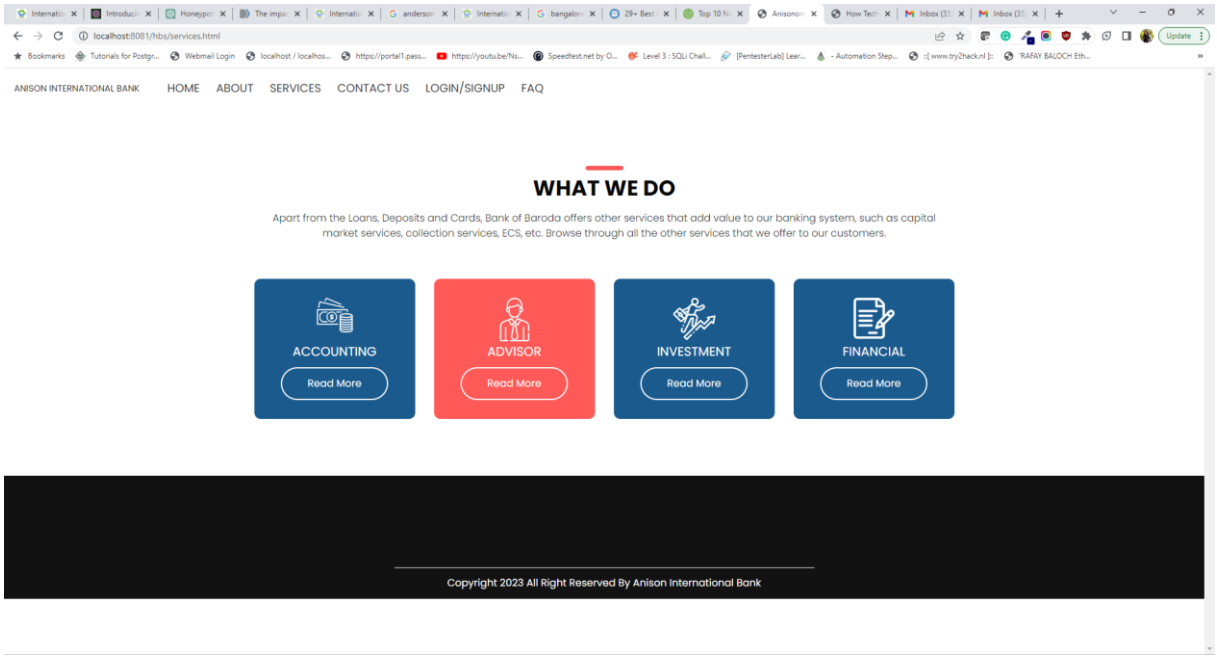


Figure 8.10 Services Page

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