

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA, BELAGAVI – 590018**



An Internship Report

Submitted in partial fulfillment of the requirement of

Internship/Professional Practice [17EC84]

For the award of degree of

BACHELOR OF ENGINEERING

In

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted By

Thejaswi P Gowda [4MU17EC022]

Internship carried out

at

Q-Spiders

Bangalore



DEPARTMENT OF ELECTRONICS AND COMMUNICATION

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2020-2021

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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2020-2021



Department of Electronics and communication Engineering

CERTIFICATE

This is to certify that Internship/Professional Practice report submitted by **Thejaswi P Gowda** [4MU17EC022] student of VIII semester B.E in the Department of Electronics and Communication **Mysuru Royal Institute of Technology**, Mandya, in partial fulfilment of the requirement of **Visvesvaraya Technological University, Belagavi**, during year **2020-2021**. It is certified that all the corrections/suggestions indicated for Internal Assessment have been incorporated in the report submitted to the department. The report has been approved as it satisfies the academic requirements in respect of the internship prescribed for the degree carried out at Q-spiders, Bangalore.

Signature of the Internship Coordinator

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Name of the Examiner

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2.

Signature with Date

STUDENT DECLARATION

I, **Thejaswi P Gowda** [USN: 4MU17EC022] and student of final year B.E., Electronics and Communication Engineering, MYSURU ROYAL INSTITUTE OF TECHNOLOGY COLLEGE OF ENGINEERING, MYSURU, hereby declare that the internship has been successfully carried out at “**Q-Spiders**” and submitted report in partial fulfilment of the requirements for the award of BACHELOR OF ENGINEERING in ELECTRONICS AND COMMUNICATION ENGINEERING by the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the academic year 2020- 2021 is a bonafide work carried out by me under the guidance of **Mr. Mohammed Ali**, Assistant Professor, Dept. of ECE, MRIT, Mandya.

This report has not been submitted earlier to any other university or institution for the award of any degree.

The contents of this report are based on the data collected by me at **Q-spiders, Bangalore** under the guidance of **Mr. Sandeep, Mr. Arshad and Miss.Jeevitha**.

Place: Mysore

Date:

Thejaswi P Gowda [4MU17EC022]

Acknowledgement

The satisfaction that accompanies the successful completion of the work would be incomplete without the mention of the people who made it possible, without whose constant guidance and encouragement would have made efforts go in vain. We are privileged to express gratitude and respect towards all those who guided us through the completion of the Internship.

First we would like to thank **Q-SPIDERS** Software Testing Training Institute Basavanagudi Bengaluru, for giving me the opportunity to do an internship within the organization.

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Thank you

Thejaswi P Gowda [4MU17EC022]

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Abstract

To create simple python ATM Simulation in the PYCHARM application. Python is a scripting language that is great for both beginners and experts alike. The coding style in python is easy to read and fallow. This ATM simulation was created in order to show a user some basic programming technique using python with PYCHARM IDE. The aim of the ATM simulation system project is to build a python based ATM simulation system it contains various functions which includes Account statement, withdrawing, depositing amount and changing pin. Here, at first the user has to enter an existing username, when the username matches the system proceed towards the next procedure i.e. asking pin number. When a user passes all those sign in procedures, user can check their respective account statement.

While depositing or withdrawing amount, user has to enter the amount then the system calculates the total remaining balance of the respective account and displays to the user. And user can view all these transaction from the account statement. In this ATM simulator, the user can also change the pin number. For this the user has to enter the new pin code and confirm it in order to change the pin code. This simple console based ATM simulator provides the simple account balance management of the respective account. It contains all the essential features. There is no database connection or either any external text or other files used in this mini project to save user's data. Everything is set inside the source code whether its pin code or the amount.

Chapter 1

Company profile

1.1 Introduction to Internship

An internship is an opportunity offered by an industry or IT company to the final year students called interns to work at a firm for a fixed, limited period of time. Students who move from college to job need to have a trained knowledge and have practical exposure to get a clear idea about how companies work and what type of works will be handled in companies from documentation stage to project completion. This internship & in plant training will polish students to gain this basic knowledge and give confidence while facing interviews, companies will welcome candidates who are familiar with this knowledge. In internship student works for a company or organization in order to get experience of a particular type of work. The position of a student or trainee who works in an organization, sometimes with or without pay, in order to gain work experience or satisfy requirements for a qualification.

1.2 Over view of company

The “**Q-spiders**” providing an option for students to take part in Internship & In-Plant Training (IPT) by considering the demand for trained students under various software technologies. This program helps a student in gaining practical knowledge of both Hardware and software subjects. By being part of this program students can get exposure on real-time projects with complete support from experienced trainers for both theoretical and practical areas. If you are a student who is looking for practical exposure before job this program will be helpful. After training is completed we will provide a certificate of completion. Q-spiders Company started in the year 2014 in Bangalore with the view to make the business folks to adopt the recent technological services into their respective industries. Q-spiders is an IT and Training service providers headquartered at Bangalore. We build solid and respected business by specializing in Developing Application, Providing IT Consulting Services, and Maintenance and Support.



Figure 1.1 logo of Q-spiders and J- spiders

Vision of the company

Q-Spiders are one of the leading providers of Career Based training programs along with professional certification courses. They associate with industry experts to deliver the training Requirements of Job seekers And working professionals. To become a Globally admired Organization. Engage job seekers, working professionals, employers and universities around the globe for fulfilling their needs through education.

Mission of the company

Their mission is to provide best in class education via robust technology platform and to achieve almost customer satisfaction. At Q-Spiders, they have ensured that the training is imparted by specialists with Proven subject matter expertise and who have spent over a decade in their area of specialization. The faculties of their team are highly competent, skilled and dedicated to giving their best towards the professional development of the students. Besides training, they also provide placement assistance.

Strength of the company

Q-spiders is the world's ace java and python development training organization with an aim to bridge the gap between the demands of the industry and the curriculum of educational institutions. With centers across India, the institute is a platform where young minds are given the opportunity to build successful careers. " Q-spiders is a place where businesses find talent and dreams take flight."

1.3 Products and Services Offered by the company

Courses offered in Q-spider

- Python Selenium
- Advanced Selenium Software testing course
- Agile Methodology and DevOps
- Aptitude Testing
- C, C++ Programming
- Classic Selenium Software Testing
- Cloud and Virtualization
- Cucumber
- elitmus Training
- General Aptitude

- Internship in Java
- Internship in Python
- ISTQB-software testing course
- J2EE • Mobile Application testing
- Performance Testing
- QTP • Selenium Expert
- Selenium Project
- Soap UI
- Soft skills Spoken English
- Placement services offered
- Corporate requirement / manpowered training offer



Figure 1.2 logo of Q-SPIDERS

1.4 About the Department

Management and Administration:

Their main Administration depends upon the “Yantra”. Yantra is a Sanskrit word for "machine" or "instrument". The word Yantra is derived from the root 'yam' meaning to sustain, hold or support. ‘Test Yantra’ symbolizes the automated and expert contrivance that harnesses the energy and experience of the organization to make our client’s business successful through full range QA services. While coming to faculties they are the main pillars of the institute. Here the main pillars are: Mr. Girish, Mr. Keshava, Mr. Shishira bhat. Mr. Girish is a seasoned executive leader, founder & CEO of Test Yantra Software Solutions, Q-Spiders, J-spiders & Flagroot. Over the years Mr. Girish has played pivotal roles and has been instrumental in co-founding number of companies. Keshav is a passionate trainer, coach and mentor with over a decade of experience in training, working professional and fresh graduate on Java. He has worked for reputed multinationals for more than 12 years & is currently a Senior Technical Consultant for various companies. He has worked on virtualization & cloud computing. He is a certified Java programmer and a Certified Scrum Master and has

facilitated several learning sessions on UNIX & Shell scripting. He has mentored more than 150,000 students and conducted corporate training programs at various multinational establishments such as AOL, Marlabs, Goldman Sachs and NTT Data. With an inimitably lucid teaching style, he ensures that even the absolute novice is able to understand and apply concepts in Java within a short period of time. He has been called the “Java Master” at J-spiders.

Mr. Shishira bhat is a Co-Founder of J-Spiders & Vice President. Diverse exposure to Client Relationship Management, Global Delivery, Application Development & Testing Recognized for expertise in building large Global Training Delivery Centers. Worked with OOAD Scientists, SME's, architects & Product creators. Has working experience in India and overseas in IT Service Industry & responsible for global delivery. Designed & developed highly scalable enterprise applications for Retail, Telecom & Banking domains. Responsible for the leadership, strategic direction and operational management. High Dynamic Range Imaging.

1.5 Training Department

Q-Spiders and J-Spiders are among the largest software testing and development training organizations across the globe with branches in North America, Europe and the Asia Pacific. They are "finishing schools" that up skill job aspirants across streams to match industry standards. Q-Spiders and J-Spiders also have incubation canterers across India. These incubation centers prepare students in the final semester of their graduate studies, so that they are deployable as soon as they graduate. Q-Spiders and J-Spiders hold the record of supplying the highest number of industry-ready...



Figure 1.3 flow chart

- Specializes in departing industry ready training solution.
- Follows Integrated theory and practical approach.
- Prepares Trainees Project Ready
- Performs Trainee Performance Evaluation
- Performs Gap analysis

Chapter 2

Introduction to python

2.1 Python

Python is a widely used high-level, general-purpose, interpreted, dynamic programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C++ or Java. The language provides constructs intended to enable clear programs on both a small and large scale.

Python supports multiple programming paradigms, including object-oriented, imperative and functional programming or procedural styles. It features a dynamic type system and automatic memory management and has a large and comprehensive standard library. Python interpreters are available for installation on many operating systems, allowing Python code execution on a wide variety of systems.

History

Python was conceived in the late 1980s, and its implementation was started in December 1989 by Guido van Rossum at CWI in the Netherlands as a successor to the ABC language (itself inspired by SETL) capable of exception handling and interfacing with the Amoeba operating system. Van Rossum is Python's principal author, and his continuing central role in deciding the direction of Python is reflected in the title given to him by the Python community, benevolent dictator for life (BDFL)

“Python is an experiment in how much freedom programmers need. Too much freedom and nobody can read another's code; too little and expressiveness is endangered.”

- Guido van Rossum

2.2 System Requirement

Hardware Specification

- Processor - 2 GHz processor or faster, Intel Pentium.
- Speed - 1.1 GHz.
- RAM - Minimum 1GB.
- Hard Disk - Min 20 GB.

Software Specification

- Operating System - Windows 9,8,10 Windows XP or higher.
- Programming Language - Python.
- Platform -Pycharm/ Visual Studio Code.

2.3 Python Code Execution

Python's traditional runtime execution model: source code you type is translated to byte code, which is then run by the Python Virtual Machine. Your code is automatically compiled, but then it is interpreted. Source code extension is .py Byte code extension is .pyc (compiled python code)

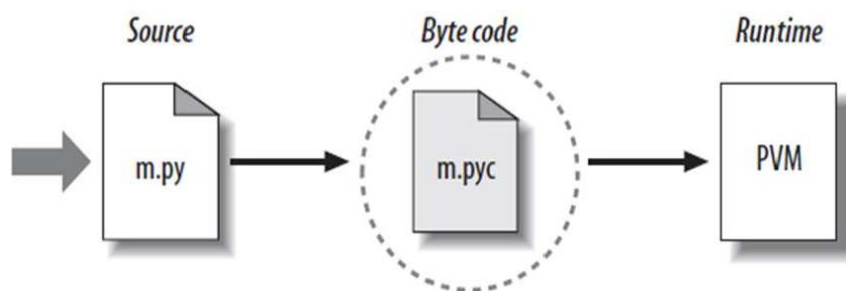


Figure 2.1 code execution

Features of Python programming language

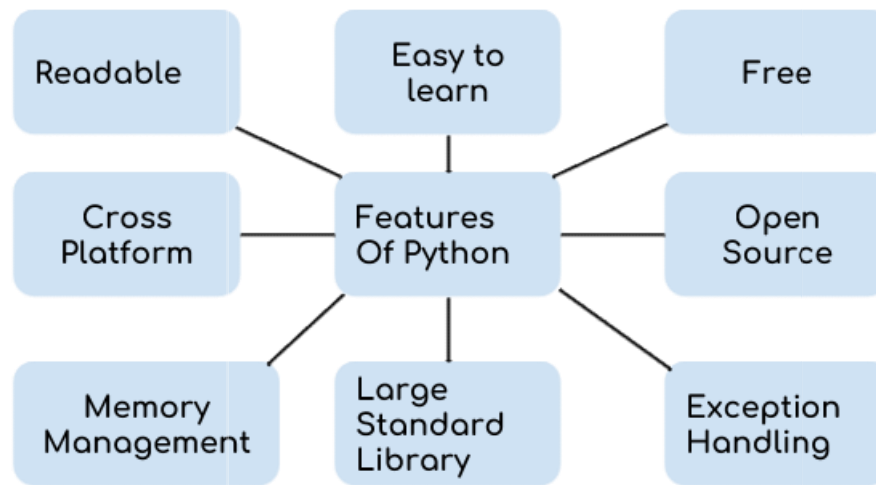


Figure 2.2 features of python

2.4 Data Type

Data types determine whether an object can do something, or whether it just would not make sense. Other programming languages often determine whether an operation makes sense for an object by making sure the object can never be stored somewhere where the operation will be performed on the object (this type system is called static typing). Python does not do that. Instead it stores the type of an object with the object, and checks when the operation is performed whether that operation makes sense for that object (this is called dynamic typing).

Python has many native data types. Here are the important ones:

Booleans are either true or false.

Numbers can be integers (1 and 2), floats (1.1 and 1.2), fractions (1/2 and 2/3), or even complex numbers.

Strings are sequences of Unicode characters, e.g. an HTML document.

Bytes and byte arrays, e.g. a JPEG image file.

Lists are ordered sequences of values.

Tuples are ordered, immutable sequences of values.

Sets are unordered bags of values.

Variable

Variables are nothing but reserved memory locations to store values. This means that when you create a variable you reserve some space in memory. Based on the data type of a variable, the interpreter allocates memory and decides what can be stored in the reserved memory. Therefore, by assigning different data types to variables, you can store integers, decimals or characters in these variables.

Ex:

```
counter = 100                # An integer assignment
miles  = 1000.0              # A floating point
name   = "John"              # A string
```

String

In programming terms, we usually call text a string. When you think of a string as a collection of letters, the term makes sense. All the letters, numbers, and symbols in this book could be a string. For that matter, your name could be a string, and so could your Address.

Creating Strings

In Python, we create a string by putting quotes around text. For example, we could take our otherwise useless

- | | | | |
|---|-------------------|-------------------|-----------------|
| • | "hello"+"world" | "hello world" | # concatenation |
| • | "hello"*3 | "hellohellohello" | # repetition |
| • | "hello"[0] | "h" | # indexing |
| • | "hello"[-1] | "o" | # (from end) |
| • | "hello"[1:4] | "ello" | # slicing |
| • | len("hello") | 5 | # size |
| • | "hello" < "jello" | 1 | # comparison |
| • | "e" in "hello" | 1 | # search |

List

The list is a most versatile data type available in Python which can be written as a list of comma-separated values (items) between square brackets. Important thing about a list is that items in a list need not be of the same type.

Creating a list is as simple as putting different comma-separated values between square brackets. For example –

- `list1 = ['physics', 'chemistry', 1997, 2000];`
- `list2 = [1, 2, 3, 4, 5];`
- `list3 = ["a", "b", "c", "d"];`
- Similar to string indices, list indices start at 0, and lists can be sliced, concatenated and soon.

Loops

Programming languages provide various control structures that allow for more complicated execution paths. A loop statement allows us to execute a statement or group of statements multiple times. The following diagram illustrates a loop statement –

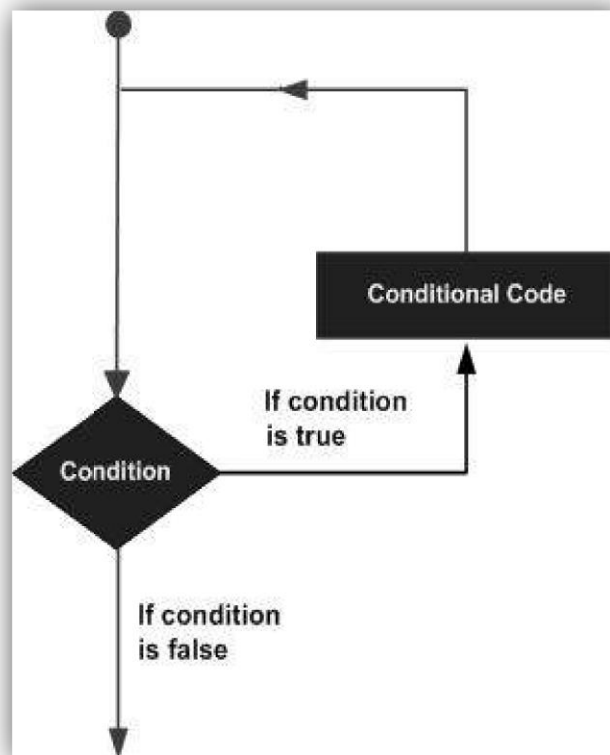


Figure 2.3 loop flow chart

Python programming language provides following types of loops to handle looping requirements.

Loop Type	Description
while loop	Repeats a statement or group of statements while a given condition is TRUE. It tests the condition before executing the loop body.
for loop	Executes a sequence of statements multiple times and abbreviates the code that manages the loop variable.
nested loops	You can use one or more loop inside any another while, for or do. While loop.

Example:**For Loop:**

```
>>> For mynum in [1, 2, 3, 4, 5]:
```

```
    Print "Hello", mynum
```

```
Hello 1
```

```
Hello 2
```

```
Hello 3
```

```
Hello 4
```

```
Hello 5
```

While Loop:

```
>>> Count = 0
```

```
>>> while (count < 4):
```

```
    Print 'the count is:' count
```

```
    Count = count + 1
```

```
The count is: 0
```

```
The count is: 1
```

The count is: 2

The count is: 3

Conditional Statements

Decision making is anticipation of conditions occurring while execution of the program and specifying actions taken according to the conditions.

Decision structures evaluate multiple expressions which produce TRUE or FALSE as outcome. You need to determine which action to take and which statements to execute if outcome is TRUE or FALSE otherwise.

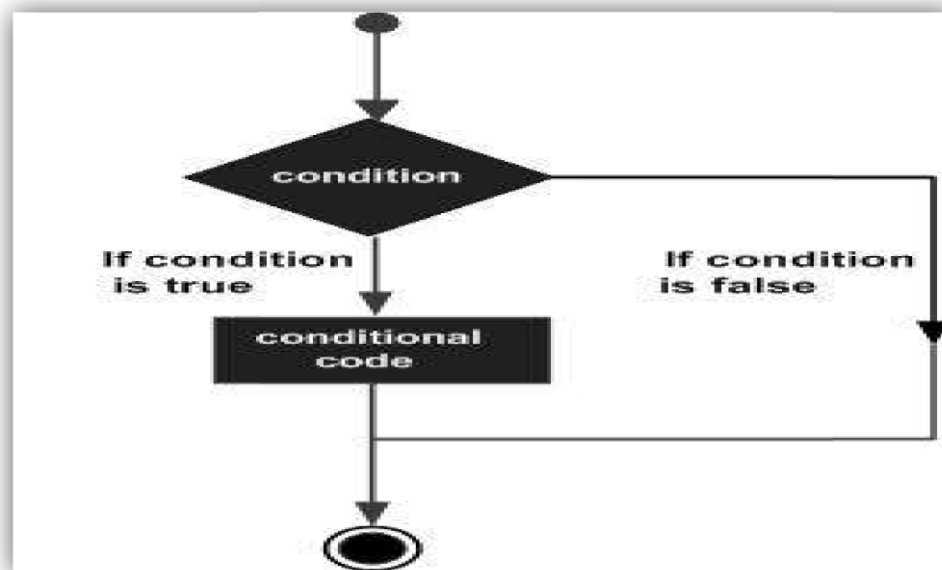


Figure 2.4 conditional statement flow chart

Example:

If Statement:

```
>>> State = "Texas"
```

```
>>> If state == "Texas":
```

```
    Print "TX"
```

```
TX
```

If...Else Statement:

```
>>> If state == "Texas"
```

```
    Print "TX"
```

Else:

Print “[inferior state]”

If...Else...If Statement:

```
>>> if name == “Paige”
```

```
    Print “Hi Paige!”
```

```
    elif name == “Walker”:
```

```
        Print “Hi Walker!”
```

Else:

```
print “Imposter!”
```

Function

Function blocks begin with the keyword **def** followed by the function name and parentheses ().

Any input parameters or arguments should be placed within these parentheses. You can also define parameters inside these parentheses.

The first statement of a function can be an optional statement - the documentation string of the function.

The code block within every function starts with a colon (:) and is indented.

The statement `return [expression]` exits a function, optionally passing back an expression to the caller. A return statement with no arguments is the same as `return none`.

Syntax:

```
Def functionname (parameters ):
```

```
    "function_docstring"
```

```
    Function suite
```

```
    Return [expression]
```

Example:

- ```
def printme(str):
```

```
 "This prints a passed string into this function"
```

```
 Print str
```

```
 Return
```

## Chapter 3

### MINI Project

#### 3.1 Internship MINI Project –ATM Simulation using Python.

An automatic teller machine (ATM) is a computerized telecommunications device and real-time system that provides the clients of a financial institution with access to their bank accounts in a public space without intervention administration of financial institution. These machines can now be found at most supermarkets, convenience stores and travel centers .To use an automatic teller machine, clients must have a plastic ATM card with a plastic smartcard with a chip or a magnetic stripe, which contains a unique card number and some security information about the client. The customer is identified by inserting plastic ATM card and entering a personal identification number (PIN) for the customer. ATM allow customers to access their bank accounts, and enable them to deposit and withdrawal processes as well as check their account balances and enable them to use their mobile phones to buy prepaid credit. Also an automatic teller machine allows a bank customer to conduct their banking transactions from almost every other ATM machine in the world. Most ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account or in the country where their accounts are held (enabling cash withdrawals in local currency). Some examples of interbank networks include PLUS, Cirrus, Interact and LINK. ATMs rely on authorization of a financial transaction by the card issuer or other authorizing institution via the communications network. Many banks charge ATM usage fees. In some cases, these fees are charged solely to users who are not customers of the bank where the ATM is installed; in other cases, they apply to all users. Many people oppose these fees because ATMs are actually less costly for banks than withdrawals from human tellers. In order to allow a more diverse range of devices to attach to their networks, some interbank networks have passed rules expanding the definition of an ATM to be a terminal that either has the vault within its footprint or utilizes the vault or cash drawer within the merchant establishment, which allows for the use of a scrip cash dispenser.

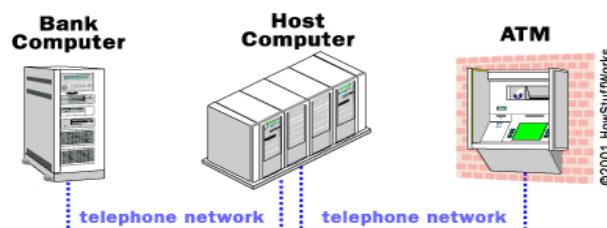


Figure 3.1. ATM Network

### 3.2 The way of ATM Work

An ATM is simply a data terminal with two input and four output devices. Like any other data terminal, the ATM has to connect to, and communicate through, a host processor. The host processor is analogous to an Internet service provider (ISP) in that it is the gateway through which all the various ATM networks become available to the cardholder (the person wanting the cash). Most host processors can support either leased-line or dial-up machines. Leased-line machines connect directly to the host processor through a four-wire, point-to-point, and dedicated telephone line. Dial-up ATMs connect to the host processor through a normal phone line using a modem and a toll-free number, or through an Internet service provider using a local access number dialed by modem. Leased-line ATMs are preferred for very high-volume locations because of their thru-put capability and dial-up ATMs are preferred for retail merchant locations where cost is a greater factor than thru-put. The initial cost for a dial-up machine is less than half that for a leased-line machine. The monthly operating costs for dial-up are only a fraction of the costs for leased-line. The host processor may be owned by a bank or financial institution, or it may be owned by an independent service provider. Bank-owned processors normally support only bank-owned machines, whereas the independent processors support merchant-owned machines.

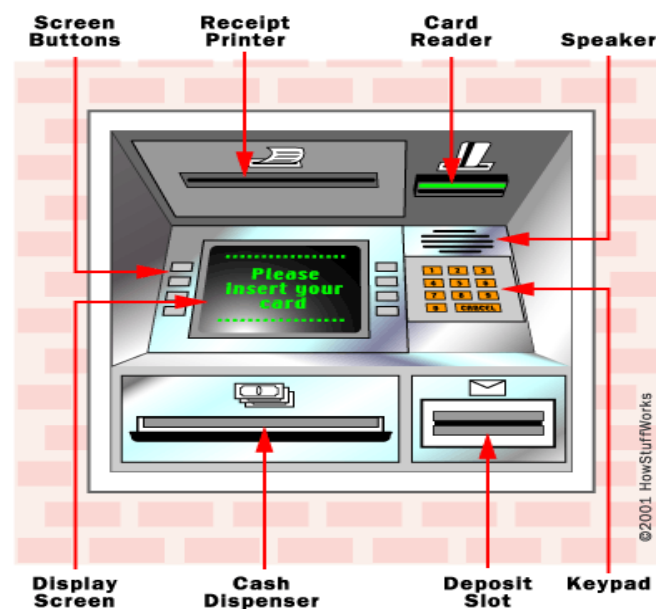


Figure 3.2. Parts of the ATM

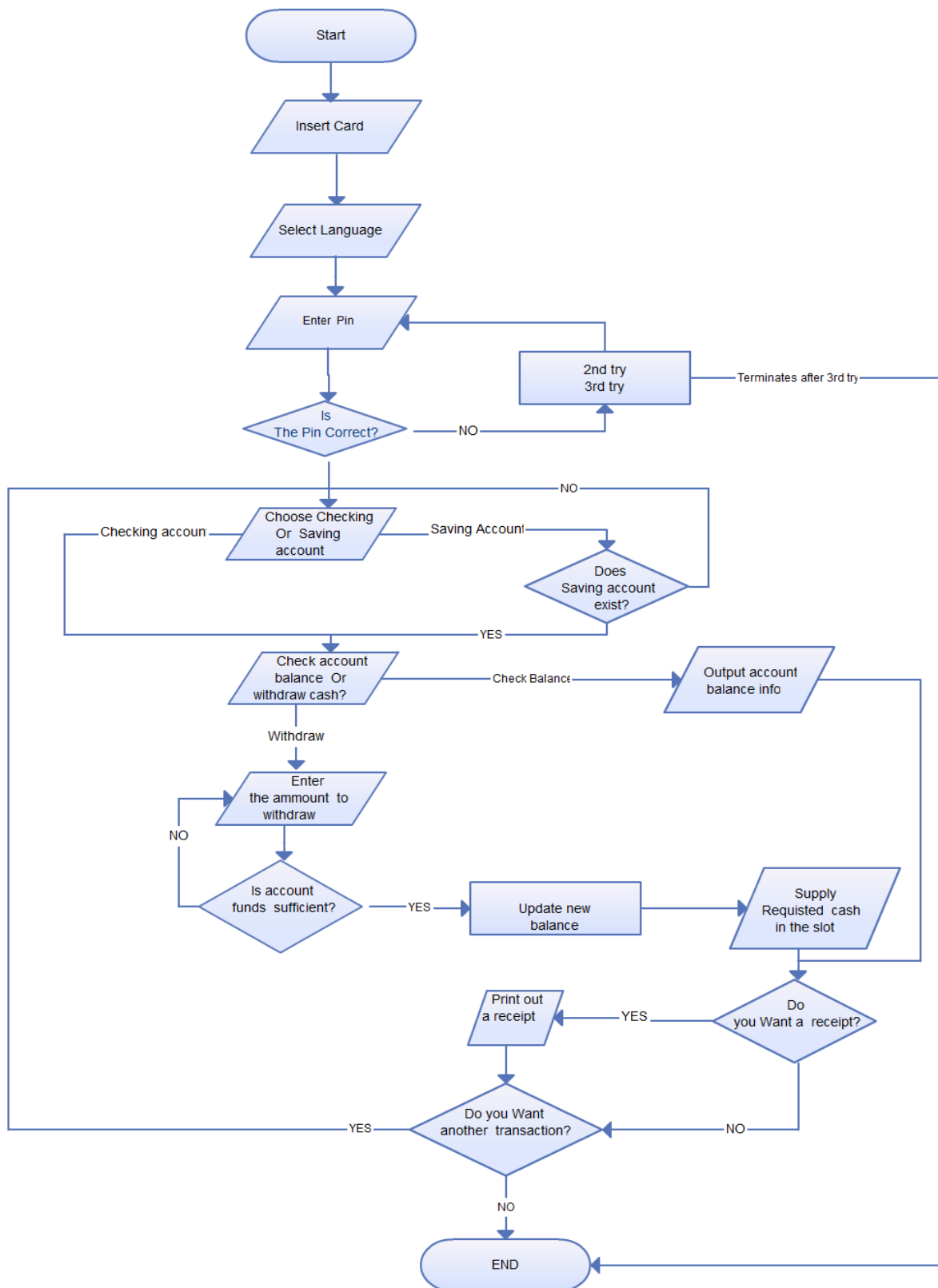


Figure 3.3. State machine diagram for object ATM

### **3.3 Flow of events for individual use case**

#### **Transaction Use Case**

A transaction use case is started within a session when the customer chooses a transaction type from a menu of options. The customer will be asked to furnish appropriate details (e.g. account(s) involved, amount). The transaction will then be sent to the bank, along with information from the customer's card and the PIN the customer entered. If the bank approves the transaction, any steps needed to complete the transaction (e.g. dispensing cash or accepting an envelope) will be performed, and then a receipt will be printed. Then the customer will be asked whether he/she wishes to do another transaction. If the bank reports that the customer's PIN is invalid, the Invalid PIN extension will be performed and then an attempt will be made to continue the transaction. If the customer's card is retained due to too many invalid PINs, the transaction will be aborted, and the customer will not be offered the option of doing another. If a transaction is cancelled by the customer, or fails for any reason other than repeated entries of an invalid PIN, a screen will be displayed informing the customer of the reason for the failure of the transaction, and then the customer will be offered the opportunity to do another. The customer may cancel a transaction by pressing the Cancel key as described for each individual type of transaction below. All messages to the bank and responses back are recorded in the ATM's log.

#### **Withdrawal Transaction Use Case**

A withdrawal transaction asks the customer to choose a type of account to withdraw from (e.g. checking) from a menu of possible accounts, and to choose a dollar amount from a menu of possible amounts. The system verifies that it has sufficient money on hand to satisfy the request before sending the transaction to the bank. (If not, the customer is informed and asked to enter a different amount.) If the transaction is approved by the bank, the appropriate amount of cash is dispensed by the machine before it issues a receipt. (The dispensing of cash is also recorded in the ATM's log.) A withdrawal transaction can be cancelled by the customer pressing the Cancel key any time prior to choosing the dollar amount.

#### **Inquiry Transaction Use Case**

An inquiry transaction asks the customer to choose a type of account to inquire about from a menu of possible accounts. No further action is required once the transaction is approved by the bank before printing the receipt. An inquiry transaction can be cancelled by the customer pressing the Cancel key any time.



## **Deposit Transaction Use Case**

A deposit transaction asks the customer to choose a type of account to deposit to (e.g. checking) from a menu of possible accounts, and to type in a dollar amount on the keyboard. The transaction is initially sent to the bank to verify that the ATM can accept a deposit from this customer to this account. If the transaction is approved, the machine accepts an envelope from the customer containing cash and/or checks before it issues a receipt. Once the envelope has been received, a second message is sent to the bank, to confirm that the bank can credit the customer's account - contingent on manual verification of the deposit envelope contents by an operator later. (The receipt of an envelope is also recorded in the ATM's log). A deposit transaction can be cancelled by the customer pressing the Cancel key any time prior to inserting the envelope containing the deposit. The transaction is automatically cancelled if the customer fails to insert the envelope containing the deposit within a reasonable period of time after being asked to do so.

## **Invalid PIN Extension**

An invalid PIN extension is started from within a transaction when the bank reports that the customer's transaction is disapproved due to an invalid PIN. The customer is required to re-enter the PIN and the original request is sent to the bank again. If the bank now approves the transaction, or disapproves it for some other reason, the original use case is continued; otherwise the process of re-entering the PIN is repeated. Once the PIN is successfully re-entered, it is used for both the current transaction and all subsequent transactions in the session. If the customer fails three times to enter the correct PIN, the card is permanently retained, a screen is displayed informing the customer of this and suggesting he/she contact the bank, and the entire customer session is aborted. The customer presses cancel instead of re-entering a PIN, the original transaction is cancelled.

### 3.4 Program

```

print("Welcome to State Bank ")
print("Please Insert Your Card")
trails = 3
user_pin = 1234
Balance = 8000
while trails != 0:

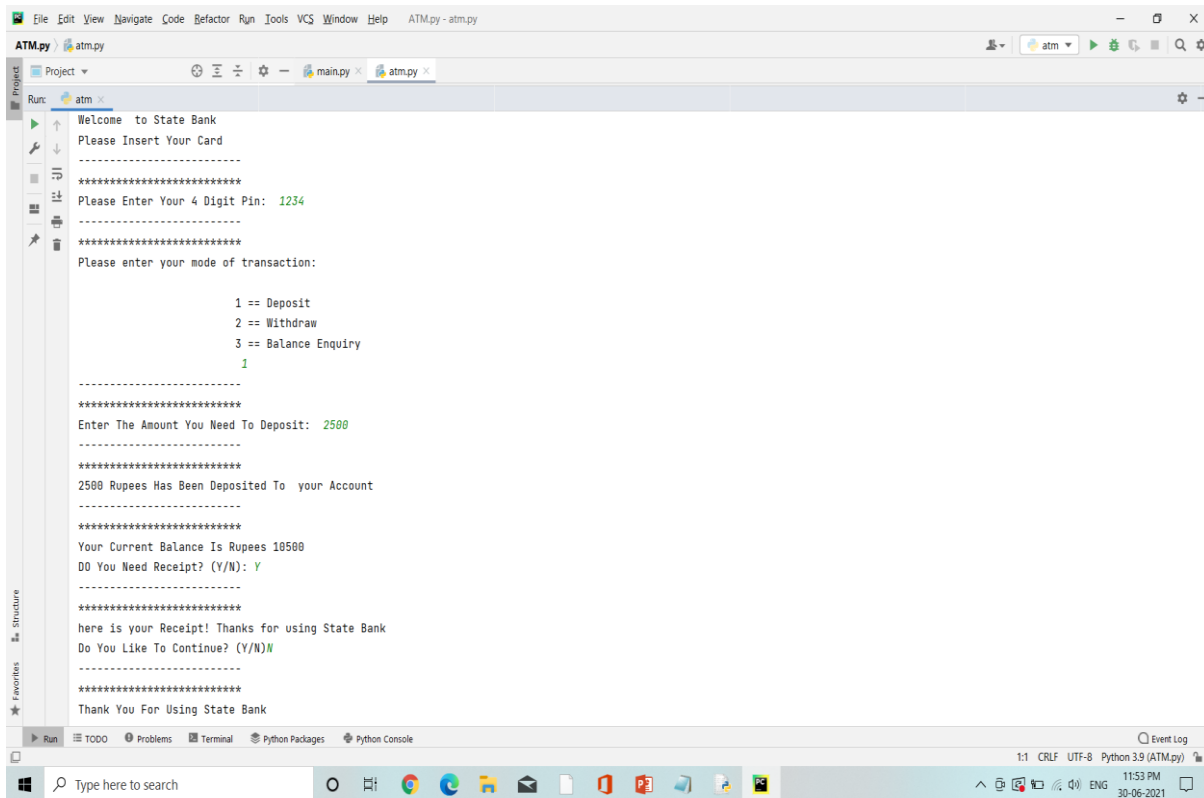
 print("-----")
 print("*****")
 pin = int(input("Please Enter Your 4 Digit Pin: "))
 print("-----")
 print("*****")
 if pin != user_pin:
 trails -= 1
 print("Invalid pin number,You Have", trails, "trails left")
 else:
 print("Please enter your mode of transaction:")
 user_choice = input("""
 1 == Deposit
 2 == Withdraw
 3 == Balance Enquiry
 4 == Pin Change
 """)

 if user_choice == "1":
 print("-----")
 print("*****")
 user_deposit = int(input("Enter The Amount You Need To Deposit: "))
 print("-----")
 print("*****")
 print(user_deposit, "Rupees Has Been Deposited To your Account")
 Balance = Balance + user_deposit
 print("-----")
 print("*****")
 print("Your Current Balance Is Rupees", Balance)
 if user_choice == "2":
 print("-----")
 print("*****")
 user_withdraw = int(input("Enter The Amount You Need To Withdraw:"))
 if user_withdraw >= Balance:
 print("Insufficient Balance")
 else:
 print("-----")
 print("*****")
 print(user_withdraw, " Rupees Has Been Withdrawn From Your Account")
 Balance = Balance - user_withdraw
 print("-----")
 print("*****")
 print("Your Current Balance Is Rupees", Balance)
 if user_choice == "3":
 print("-----")
 print("*****")
 print("Available balance in your Account is:", Balance)
 if user_choice == "4":
 user_pin = int(input("Enter the new pin: "))
 user_receipt = input("DO You Need Receipt? (Y/N): ")
 if user_receipt == "Y":
 print("-----")
 print("*****")
 print("Here is your Receipt! Thanks for using State Bank")
 else:
 print("-----")
 print("*****")
 print("Thank You for using State Bank")
 user_exit = input("Do You Like To Continue? (Y/N)")
 if user_exit == "N":
 print("-----")
 print("*****")
 print("Thank You For Using State Bank")
 break
 else:
 continue

```

## 3.5 RESULTS

### Deposit Amount



```
ATM.py
Welcome to State Bank
Please Insert Your Card

Please Enter Your 4 Digit Pin: 1234

Please enter your mode of transaction:

 1 == Deposit
 2 == Withdraw
 3 == Balance Enquiry
 1

Enter The Amount You Need To Deposit: 2500

2500 Rupees Has Been Deposited To your Account

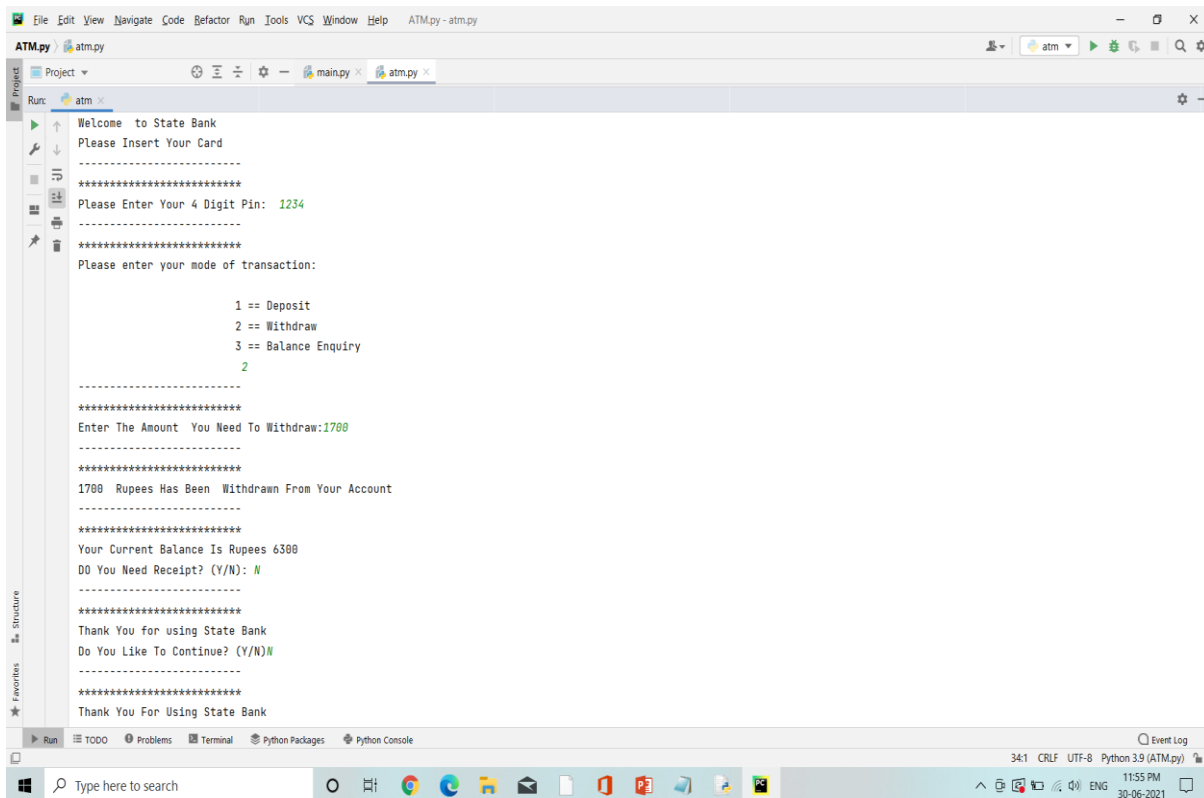
Your Current Balance Is Rupees 10500
Do You Need Receipt? (Y/N): Y

here is your Receipt! Thanks for using State Bank
Do You Like To Continue? (Y/N)N

Thank You For Using State Bank
```

Figure 3.4. Output of Deposit Amount

### Withdraw Amount



```
ATM.py
Welcome to State Bank
Please Insert Your Card

Please Enter Your 4 Digit Pin: 1234

Please enter your mode of transaction:

 1 == Deposit
 2 == Withdraw
 3 == Balance Enquiry
 2

Enter The Amount You Need To Withdraw:1700

1700 Rupees Has Been Withdrawn From Your Account

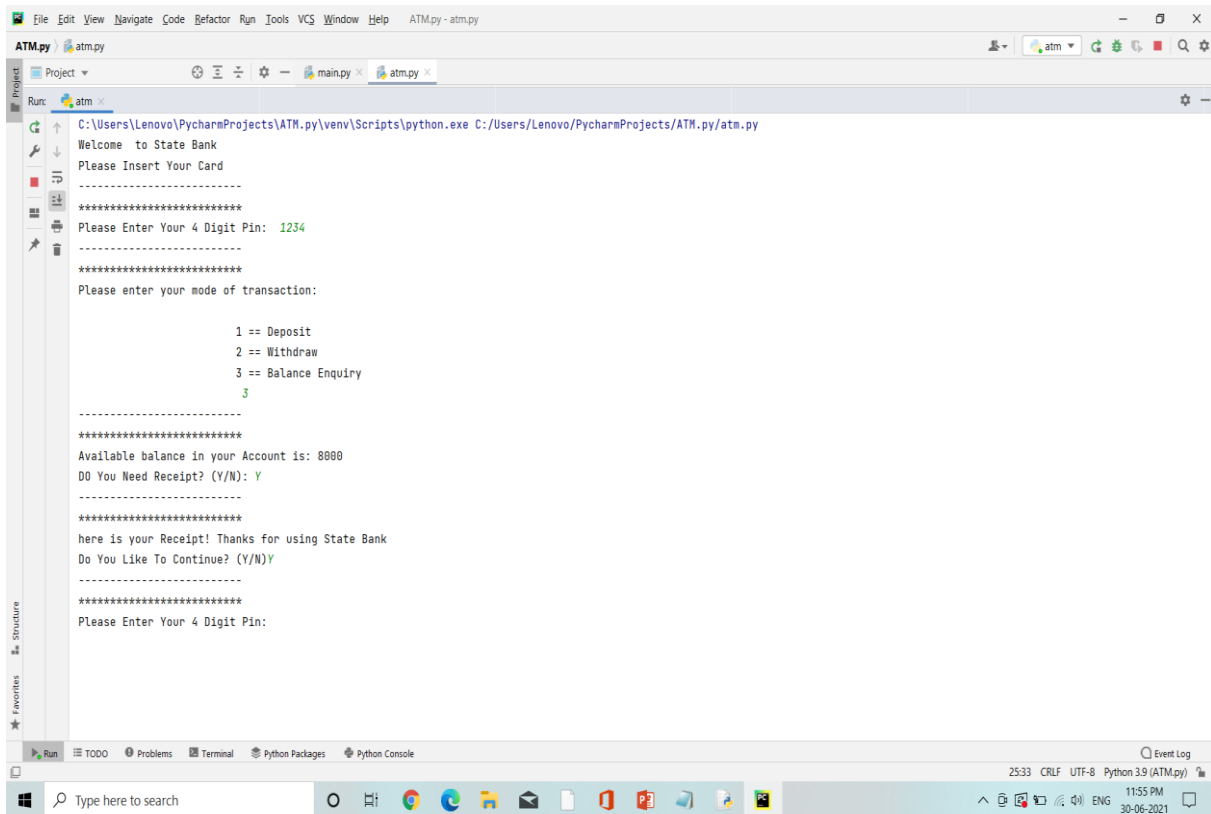
Your Current Balance Is Rupees 6300
Do You Need Receipt? (Y/N): N

Thank You for using State Bank
Do You Like To Continue? (Y/N)N

Thank You For Using State Bank
```

Figure 3.5. Output of Withdraw Amount

## Balance Enquiry



```
ATM.py - atm.py
C:\Users\Lenovo\PycharmProjects\ATM.py\venv\Scripts\python.exe C:/Users/Lenovo/PycharmProjects/ATM.py/atm.py
Welcome to State Bank
Please Insert Your Card

Please Enter Your 4 Digit Pin: 1234

Please enter your mode of transaction:
1 == Deposit
2 == Withdraw
3 == Balance Enquiry
3

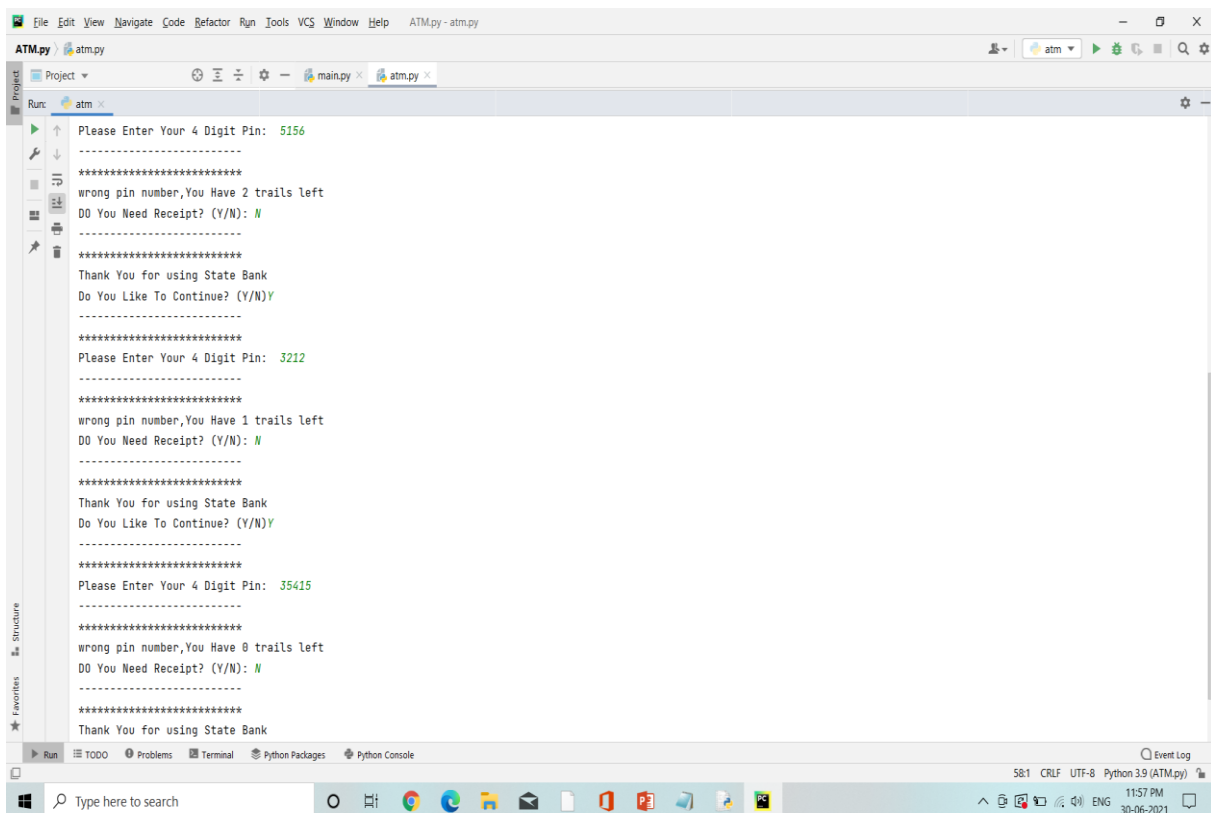
Available balance in your Account is: 8000
DO You Need Receipt? (Y/N): Y

here is your Receipt! Thanks for using State Bank
Do You Like To Continue? (Y/N)Y

Please Enter Your 4 Digit Pin:
```

Figure 3.6. Output of Balance Enquiry

## Incorrect PIN



```
ATM.py - atm.py
Please Enter Your 4 Digit Pin: 5156

wrong pin number,You Have 2 trails left
DO You Need Receipt? (Y/N): N

Thank You for using State Bank
Do You Like To Continue? (Y/N)Y

Please Enter Your 4 Digit Pin: 3212

wrong pin number,You Have 1 trails left
DO You Need Receipt? (Y/N): N

Thank You for using State Bank
Do You Like To Continue? (Y/N)Y

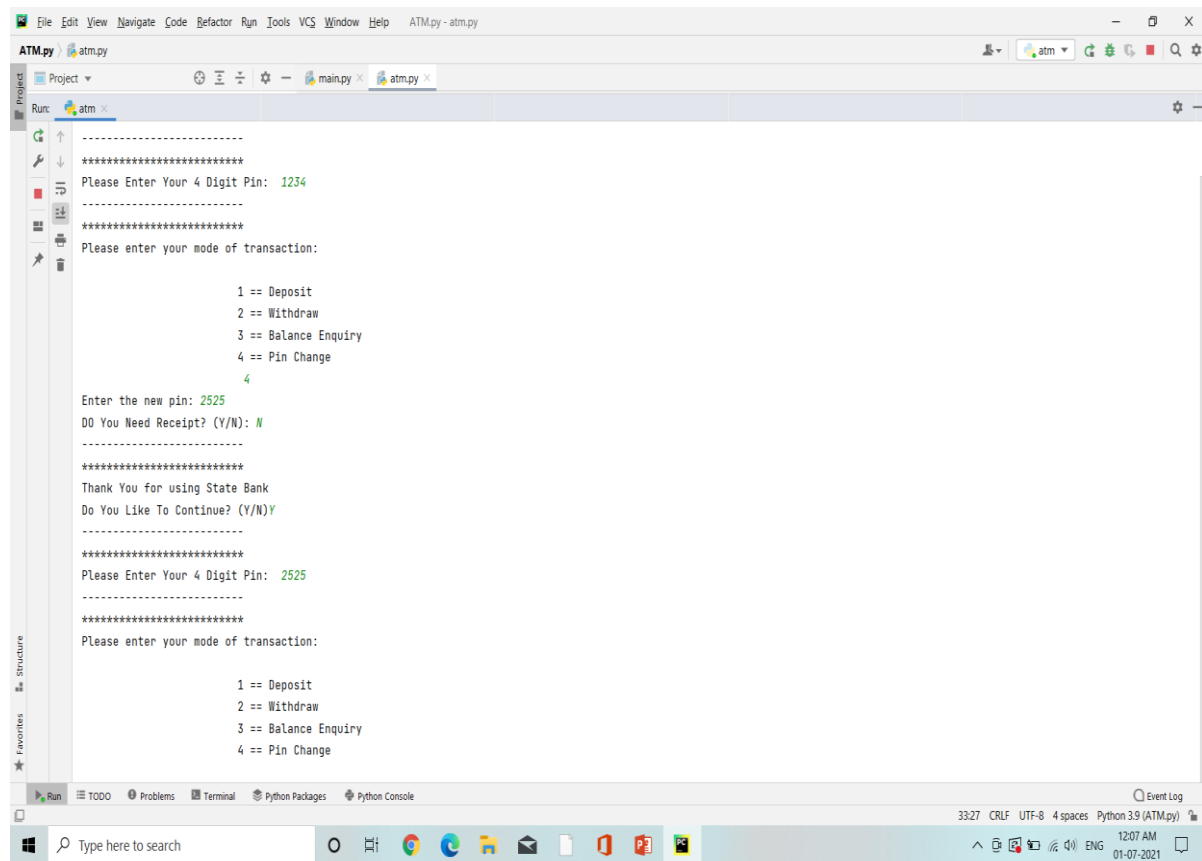
Please Enter Your 4 Digit Pin: 35415

wrong pin number,You Have 0 trails left
DO You Need Receipt? (Y/N): N

Thank You for using State Bank
```

Figure 3.7. Output of Incorrect PIN

## PIN Change



The screenshot shows a Python IDE window titled 'ATM.py - atm.py'. The main editor area displays the output of a program. The output consists of several lines of text, including prompts for PIN entry, transaction mode selection, and receipt confirmation. The user has entered '1234' for the first PIN, '2525' for the new PIN, and 'N' for the receipt. The program also displays a menu of transaction options: 1 == Deposit, 2 == Withdraw, 3 == Balance Enquiry, and 4 == Pin Change. The user has selected '4' for Pin Change. The IDE interface includes a menu bar (File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, Help), a toolbar, and a status bar at the bottom showing the current time (12:07 AM) and date (01-07-2021).

```

Please Enter Your 4 Digit Pin: 1234

Please enter your mode of transaction:

1 == Deposit
2 == Withdraw
3 == Balance Enquiry
4 == Pin Change
4

Enter the new pin: 2525
DO You Need Receipt? (Y/N): N

Thank You for using State Bank
Do You Like To Continue? (Y/N)Y

Please Enter Your 4 Digit Pin: 2525

Please enter your mode of transaction:

1 == Deposit
2 == Withdraw
3 == Balance Enquiry
4 == Pin Change
```

Figure 3.8. Output of PIN Change

## Chapter 4

### Internship outcomes

#### 4.1 Challenge faced

- The internship was much different from college academics and it takes little time to adjust to the environment and schedule.
- Initially it is a difficult to understand the works/training assigned to us.
- During training they made us to practice some of the programs on abstract classes and interfaces, found little difficult without practical knowledge.
- We learnt how to use web framework, java implementation and also how to use & configure it.

#### 4.2 Technical outcomes

- Developing a technical artifact requiring new technical skills.
- Using profession specific terminology appropriately.
- Effectively utilizing the tools and resources to complete a task.
- Creating training materials.
- Maintaining and troubleshooting technology.
- Analyzing or visualizing data to create information.
- Writing requirements documentation.
- Selecting appropriate technologies.
- Acquiring and evaluating information.
- Creating or modifying technology policies.
- Performing effective and informative user testing.
- Identifying and creating appropriate test cases for systems.

#### 4.3 NON TECHNICAL OUTCOMES

- Demonstrating understanding of professional customs and practices.
- Organizing and maintaining information.
- Applying knowledge to the task.
- Negotiating and arriving at a decision.

- Working with diversity/diverse populations.
- Identifying, understanding and working with professional standards.
- Working in cross-cultural and/or multicultural settings.
- Learning how to learn.
- Improving problem-solving and critical thinking skills.
- Monitoring and correcting performance.
- Exercising leadership
- Behaving professionally.
- Behaving ethically.
- Listening effectively.
- Addressing colleagues and superiors appropriately.
- Allocating time effectively.
- Adapting effectively to changing conditions.
- Participating as a member of a team.
- Developing appropriate workplace attitudes.
- Understanding and managing personal behavior and attitudes.
- Developing individual responsibility.

#### **4.4 PROFESSIONAL LEARNING OUTCOMES**

- The working environment at “Q-Spiders” is good.
- Improved my surfing skill by learning things which were required for the work.
- Availability of internet facility is good which helped in downloading the required documents very easily without any difficulties which were related to the work.
- Because of faster and easier access to the internet it was easier for me to understand the module clearly by seeing the videos on how the module works.
- Team lead/Trainer is very informative and helpful.
- Gained knowledge on Project development life cycle.
- Learned how project is decided, how project is assigned to employees, how project modules will be divided, how teams are formed in a company.

- Gained the knowledge of the database creation.
- Gained the basic knowledge on JAVA/Web/Python/IoT platform.
- Learned how to do basic coding to develop an application.
- Improved communication skills.
- Internship was great opportunity to know the company environment.
- Improved presentation skills.
- Learned how to co-ordinate with other employees.
- Gained management skills.



## **Conclusion**

This internship has been an excellent and rewarding experience. We have been able to meet and network with so many people that we sure will be able to help us with opportunities in the future. We learnt verbal communication, non-verbal communication, problem solving, time management skills, observation, self-motivation and time management. We learnt to motivate our self by getting encouragement from senior staff in the office.

When we first started we did not think that we were going to be able to make our self-sit in an office for eight hours a day, five days a week. Once we realized what we had to do we organized our day and work so that we was not overlapping or wasting our hours. During task given by company, we interacted with our interns and senior engineers to determine the problems. As well internship indirectly helps to improve our communication skills, and strengthening as well when communicating with others. During our internship period, we have received advice from senior engineers and technician when mistakes were made; we took their advices in positive way to improve our carrier.

## Reference

- <https://www.codesnail.com>
- <http://www.edureka.com>