SACRED HEART SCHOOL

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A Project Report
on

Bill Management System

For
AISSCE 202 -2 Examination
[As a part of the Informatics Practices Course (065)]

SUBMITTED BY:
1) [Roll No-_____]

Under the Guidance of:
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CERTIFICATE

*This is to certify that the Project / Dissertation entitled **Bill Management System** is a bonafide work done by _____ of class XII Session 202 -2 in partial fulfillment of CBSE's AISSCE Examination 202 -2 and has been carried out under my direct supervision and guidance. This report or a similar report on the topic has not been submitted for any other examination and does not form a part of any other course undergone by the candidate.*

……
Signature of Students

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Signature of Teacher/Guide

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Signature of Principal

Signature of External Examinar

……

Place:…….
Date:……..

ACKNOWLEDGEMENT

I undertook this Project work, as the part of my XII-Informatics Practices course.I had tried to apply my best of knowledge and experience, gained during the study and class work experience. However, developing software system is generally a quite complex and time-consuming process. It requires a systematic study, insight vision and professional approach during the design and development. Moreover, the developer always feels the need, the help and good wishes of the people near you, who have considerable experience and idea.

I would like to extend my sincere thanks and gratitude to my teacher Sunil Sir. I am very much thankful to our Principal Mrs. Indu S. Nair for giving valuable time and moral support to develop this software.

I would like to take the opportunity to extend my sincere thanks and gratitude to my parents for being a source of inspiration and providing time and freedom to develop this software project.

I also feel indebted to my friends for the valuable suggestions during the project work.

_____ *[RollNo-_____]*

Class XII

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1. Introduction

This software project is developed to automate the functionalities of a Bill Management System. The purpose of the software project is to develop the Management Information System (MIS) to automate the record keeping of Product Purchase, Product Sale, Customer entry , Generate bill record, Search bill ,Product analysis with a view to enhance the decision making of the functionaries.

A MIS mainly consists of a computerized database, a collection of inter-related tables for a particular subject or purpose, capable to produce different reports relevant to the user. An application program is tied with the database for easy access and interface to the database. Using Application program or front-end, we can store, retrieve and manage all information in proper way.

This software, being simple in design and working, does not require much of training to users, and can be used as a powerful tool for automating a Fee Management System.

During coding and design of the software Project, Python a powerful front-end tool is used for coding simplicity. As a back-end a powerful, open source RDBMS, My SQL is used as per requirement of the CBSE curriculum of Informatics Practices Course.

2. Objective & Scope of the Project

The objective of the software project is to develop a computerized MIS to automate the functions of a Bill Management. This software project is also aimed to enhance the current record keeping system, which will help admin or staff to retrieve the up-to-date information at right time in right shape.

The proposed software system is expected to do the following functionality-

- ✓ *To provide a user friendly and centralized environment for MIS activities.*
- ✓ *The proposed system should maintain all the records and transactions, and should generate the required reports and information when required.*
- ✓ *To identify the critical operation procedure and possibilities of simplification using modern IT tools and practices.*

In its current scope, the software enables user to retrieve and update the information from centralized database designed with MySQL. This software does not require much training time of the users due to limited functionality and simplicity.

3. Theoretical Background

3.1 What is Database?

Introduction and Concepts:

A database is a collection of information related to a particular subject or purpose, such as tracking customer orders or maintaining a music collection. Using any RDBMS application software like MS SQL Server, MySQL, Oracle, Sybase etc, you can manage all your information from a single database file. Within the file, divide your data into separate storage containers called tables. You may and retrieve the data using queries.

A table is a collection of data about a specific topic, such as products or suppliers. Using a separate table for each topic means you can store that data only once, which makes your database more efficient and reduces data-entry errors. Table organises data into columns (called fields) and rows (called records).

A Primary key is one or more fields whose value or values uniquely identify each record in a table. In a relationship, a primary key is used to refer to specific record in one table from another table. A primary key is called foreign key when it is referred to from another table.

To find and retrieve just the data that meets conditions you specify, including data from multiple tables, create a query. A query can also update or delete multiple records at the same time, and perform built-in or custom calculations on your data.

3.2 What is My SQL?

The management of data in a database system is done by means of a general-purpose software package called a Database Management System (DBMS). Some commercially available RDBMS are MS SQL Server, MS ACCESS, INGRES, ORACLE, and Sybase.

MySQL, the most popular Open Source SQL database management system, is developed, distributed, and supported by Oracle Corporation. MySQL is named after co-founder Monty Widenius's daughter, My. The name of the MySQL Dolphin (our logo) is "Sakila,".

- ***MySQL is a database management system.***
- ***MySQL is based on SQL.***
- ***MySQL software is Open Source.***

- ***The MySQL Database Server is very fast, reliable, and easy to use.***
- ***MySQL Server works in client/server or embedded systems.***

The Main Features of MySQL

- *Written in C and C++.*
- *Works on many different platforms.*
- *Uses multi-layered server design with independent modules.*
- *Provides transactional and nontransactional storage engines.*
- *Uses a very fast thread-based memory allocation system.*
- *Executes very fast joins using an optimized nested-loop join.*
- *Implements SQL functions using a highly optimized class library that should be as fast as possible. Usually there is no memory allocation at all after query initialization.*
- *Provides the server as a separate program for use in a client/server networked environment, and as a library that can be embedded (linked) into standalone applications. Such applications can be used in isolation or in environments where no network is available.*
- *Password security by encryption of all password traffic when you connect to a server.*
- *Support for large databases. We use MySQL Server with databases that contain 50 million records. We also know of users who use MySQL Server with 200,000 tables and about 5,000,000,000 rows.*

3.3 Python

Python is an easy-to-learn yet powerful object oriented programming language. It is developed by Guido Van Rossum in 1991. Python is an interpreted language.

Features of Python

1. *Easy to Use:-Very simple and simple syntax. It can be your first programming language too.*
2. *Python is case sensitive: Case sensitivity is the phrase used to describe a programming languages ability to distinguish between upper and lower case versions of a letter in the language's character set.* ***means*** *that x=20 is different from X=30 . The variable of John is different from the variable of john.*
3. *It is an object oriented language:* ***Python is an object-oriented programming language****. What this means is we can solve a problem in Python by creating objects in our programs.*

4. *Dynamically typed: **Python** variable assignment is different from some of the popular languages like c, c++ and java. There is no declaration of a variable, just an assignment statement. ... But **Python** is a **dynamically typed** language. It doesn't know about the **type** of the variable until the code is run Python will automatically recognize the type of variable with the help of the value in the runtime.*
5. *Indentation is used in place of curly braces: **Indentation** refers to the spaces at the beginning of a code line. **Python** uses **indentation** to indicate a block of code.*
6. *Use variable without declaration: V**ariables** are containers for storing data values. Unlike other programming languages, **Python** has no command for **declaring** a **variable**. A **variable** is created the moment **you** first assign a value to it.*
7. *Interpreted Language: Python is an interpreted language, not a compiled language. This means that the python interprets and executes the code line by line at a time. It makes python an easy-to-debug language and thus suitable for beginners to advance users.*
8. *Large library: A **Python** library is a reusable chunk of code that you may want to include in your programs/ projects. To make use of the functions in a **module**, you'll need to **import** the **module** with an **import** statement. An **import** statement is made up of the **import** keyword along with the name of the **module**.*
9. *With the Python interactive interpreter: it is easy to check python commands With the Python interactive interpreter it is easy to check Python commands.*
10. *Platform Independent: Python can run equally well on variety of platforms- windows, Linus/UNIX, super computers, smart phones*

4. Problem Definition & Analysis

The hardest part of building a software system is deciding precisely what to build. No other part of the conceptual work is so difficult as establishing the detailed technical requirement. Defining and applying good, complete requirements are hard to work, and success in this endeavor has eluded many of us. Yet, we continue to make progress.

Problem definition describes the What of a system, not How . The quality of a software product is only as good as the process that creates it. Problem definition is one of the most crucial steps in this creation process. Without defining a problem, developers do not know what to build, customers do not know what to expect, and there is no way to validate that the built system satisfies the requirement.

Problem definition and Analysis is the activity that encompasses learning about the problem to be solved, understanding the needs of customer and users, trying to find out who the user really is, and understanding all the constraints on the solution. It includes all activities related to the following:

- ✓ *Identification and documentation of customer's or user's needs.*
- ✓ *Creation of a document that describes the external behavior and the association constraints that will satisfies those needs.*
- ✓ *Analysis and validation of the requirements documents to ensure consistency, completeness, and feasibility*
- ✓ *Evolution of needs.*

After the analysis of the functioning of a Bill management system, the proposed System is expected to do the following: -

- ✓ *To provide a user friendly, integrated and centralized environment for computerized Bill Management System.*
- ✓ *The proposed system should maintain all the records and transactions, and should generate the required reports and information when required.*

- ✓ *To provide efficient and secured Information storage, flow and retrieval system, ensuring the integrity and validity of records.*
- ✓ *To provide graphical and user-friendly interface to interact with a centralized database based on client-server architecture.*
- ✓ *To identify the critical operation procedure and possibilities of simplification using modern IT tools and practices.*

5. System Implementation

5.1 The Hardware used:

While developing the system, the used hardware are:

PC with Dual Core processor or sometimes, Laptop with Core i3 processor having 2 GB RAM, SVGA and other required devices.

5.2 The Softwares used:

- *Microsoft Windows® 7 & 8 as Operating System.*
- *Python 3.x.x as Front-end Development environment.*
- *MySQL as Back-end Sever with Database for Testing.*

6. How to install Software:

Hardware Requirement-

- Intel Pentium/Celeron or similar processor based PC at Client/Server end.
- 128 MB RAM and 4GB HDD space (for Database) is desirable.
- Standard I/O devices like Keyboard and Mouse etc.
- Printer is needed for hard-copy reports.
- Local Area Network(LAN) is required for Client-Server Installation

Software Requirement-

- Windows 7, 8 OS is desirable.
- Python Ver 3.x.x or higher should be installed.
- MySQL must be present at machine.

7. System Design & Development

Database Design

The software project for Bill Management System contains three tables. Tables are given below.

Table: items

```
mysql> desc items;
+--------+-------------+------+-----+---------+----------------+
| Field  | Type        | Null | Key | Default | Extra          |
+--------+-------------+------+-----+---------+----------------+
| p_no   | int(11)     | NO   | PRI | NULL    | auto_increment |
| pid    | char(10)    | YES  |     | NULL    |                |
| pname  | varchar(50) | YES  |     | NULL    |                |
| qty    | int(11)     | YES  |     | NULL    |                |
| rate   | float       | YES  |     | NULL    |                |
| amount | float       | YES  |     | NULL    |                |
+--------+-------------+------+-----+---------+----------------+
```

Table: Sale

```
mysql> desc sale;
+------------+-------------+------+-----+---------+----------------+
| Field      | Type        | Null | Key | Default | Extra          |
+------------+-------------+------+-----+---------+----------------+
| sale_no    | int(11)     | NO   | PRI | NULL    | auto_increment |
| p_no       | int(11)     | YES  |     | NULL    |                |
| pname      | varchar(50) | YES  |     | NULL    |                |
| qty        | int(11)     | YES  |     | NULL    |                |
| rate       | float       | YES  |     | NULL    |                |
| price      | float       | YES  |     | NULL    |                |
| gst        | float       | YES  |     | NULL    |                |
| tot_amount | float       | YES  |     | NULL    |                |
| Date       | date        | YES  |     | NULL    |                |
| billno     | int(11)     | YES  |     | NULL    |                |
+------------+-------------+------+-----+---------+----------------+
```

Table: customer

```
mysql> desc customer;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| c_name | varchar(45) | YES  |     | NULL    |       |
| billno | int(11)     | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
```

I/O Forms Menu & Coding:

The software project for Bill Management contains various Menu Items along with programming codes.

Menu

```
                          BILL MANAGEMENT SYSTEM
Developed By

                               MENU
Press 1 For-> New Product Entry (Purchase)
Press 2 For-> Sale Product
Press 3 For -> Generate Bill For Customer
Press 4 For-> Search Customer Through Bill Number
Press 5 For -> Product Wise Analysis
Press 0 For-> Quit from An Application

Press Enter.................

Enter Your Choice!.....
```

Coding

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from datetime import datetime
from datetime import date
import mysql.connector

now =datetime.now()
dt=date.today()
conn=mysql.connector.connect(host="localhost",user="root",passwd="sunilsir",database="sch
ool")
def report_format():
    print("*"*65)
    print("                  ABC COMPLEX        ")
    print("               RAJIV NAGAR TELIBAGH          ")
    print("                  LUCKNOW                ")
    print("************************CASH MEMO*********************************")
# cursors for different purposes
cur_item=conn.cursor() # insert details of purchase into item table
cur_sales=conn.cursor() # insert details of sale
cur_select=conn.cursor() # select data from item table
cur_customer_bill=conn.cursor() # select data from item table and generate bill
```

```
cur_customer=conn.cursor()#generate bill for customer
cur_billno=conn.cursor()# get last record from sale table
cur_print=conn.cursor()# To print bill
# Dataframes
items_save=pd.DataFrame()#create empty datafrmae
customer_bill=pd.DataFrame()
print("_"*80)
print("                    BILL MANAGEMENT SYSTEM           ")
print("Developed By                                          ")
print("_____________________________________________________________")
print("")
ch=' '
choice=int(6)
while choice>0:
    print("_____________________MENU_____________________________")
    print("Press 1 For-> New Product Entry (Purchase)")
    print("Press 2 For-> Sale Product")
    print("Press 3 For -> Generate Bill For Customer")
    print("Press 4 For-> Search Customer Through Bill Number")
    print("Press 5 For -> Product Wise Analysis")
    print("Press 0 For-> Quit from An Application")
    print("_____________________________________________________________")
    print("Press Enter.....................")
    input()
    choice=int(input("Enter Your Choice!....."))

When press 1
if choice==1:
        print("Fill the following Information.....")
        pid=input("Enter Product Code ")
        pn=input("Enter Product Name")
        qt=int(input("Enter Quantity"))
        ra=float(input("Enter Rate"))
        amt=float(qt)*ra
        addrow={"Product_ID":[pid],\
                "Product_name":[pn],\
                "Qty":[qt],\
                "Rate":[ra],\
                "Amount":[amt]}
        a=len(items_save)
```

```
addro=pd.DataFrame(addrow,index=[a])
items_save=items_save.append(addro)
print(items_save)
mylist=items_save.values.tolist()
print(tuple(mylist))
ch=input("Want to Save press Y or y other wise press N or n")
if ch=='y' or ch=='Y':
    new_item="insert into items (pid,pname,qty,rate,amount)values(%s,%s,%s,%s,%s)"
    cur_item.executemany(new_item,mylist)
    conn.commit()
    print("Data Successfully added")
```

```
Enter Your Choice!.....1
Fill the following Information.....
Enter Product Code 45
Enter Product NameCS Books
Enter Quantity40
Enter Rate455
  Product_ID Product_name  Qty    Rate    Amount
0         45      CS Books   40   455.0  18200.0
(['45', 'CS Books', 40, 455.0, 18200.0],)
Want to Save press Y or y other wise press N or nn
```

If press n than

```
Enter Your Choice!.....1
Fill the following Information.....
Enter Product Code 065
Enter Product NameIP With Python
Enter Quantity50
Enter Rate500
  Product_ID    Product_name  Qty   Rate   Amount
0         45        CS Books   40  455.0  18200.0
1        065  IP With Python   50  500.0  25000.0
(['45', 'CS Books', 40, 455.0, 18200.0], ['065', 'IP With Python', 50, 500.0, 25000.0])
Want to Save press Y or y other wise press N or ny
```

If press y than

```
Data Successfully added
```

Changes in items table

```
mysql> select * from items;
+------+------+-----------------+------+-------+--------+
| p_no | pid  | pname           | qty  | rate  | amount |
+------+------+-----------------+------+-------+--------+
|    1 | 45   | Samsung Mobile  |   20 | 12500 | 250000 |
|    2 | 12   | Sumsung TV      |   10 | 25500 | 255000 |
|    3 | 03   | IP              |   50 |   350 |  17500 |
|    4 | 45   | CS Books        |   40 |   455 |  18200 |
|    5 | 065  | IP With Python  |   50 |   500 |  25000 |
+------+------+-----------------+------+-------+--------+
```

When press 2

```
if choice==2:
    d=dt.day
    m=dt.month
    y=dt.year
    print("_"*80)
    qry_select="select * from items"
    cur_select.execute(qry_select)
    mydata=cur_select.fetchall()
    data= pd.DataFrame(mydata,columns=["pno","pid","product Name", "Quantity",
    "Rate","Amount"])
    print(data)
    print("Apply %5 GST on Total Price")
    print("_"*80)
    pn=int(input("Enter Product Number"))
    data_in_tuple=(pn,)
    qry_sel="select pname,rate from items where p_no=%s"
    cur_customer_bill.execute(qry_sel,data_in_tuple)
    d=cur_customer_bill.fetchall()
    print("Product Name      Rate      qty    Price     %5 GST     Total Price")
    for row in d:
       l=len(row[0])
       print(row[0]," "*4," ",row[1]," "*(15-l))
    bi=int(input("Enter Bill Number"))
    pna=row[0]
    r=int(row[1])
    qt=int(input("Enter Quantity"))
    p=float(r)*qt
    g=p*5/100
    tp=p+g
    da=dt
    addrow={"Product_Number":[pn],\
          "Product_name":[pna],\
          "Qty":[qt],\
          "Rate":[r],\
          "price":[p],\
          "GST":[g],\
```

```
            "Amount":[tp],\
            "Date":[da],\
            "Billno":[bi]
            }
        x=len(customer_bill)
        addro=pd.DataFrame(addrow,index=[x])
        customer_bill=customer_bill.append(addro)
        print(customer_bill)
        mylist=customer_bill.values.tolist()
        print(tuple(mylist))
        ch=input("Want to Save press Y or y or press N or n to add more items")
        if ch=='y' or ch=='Y':
            sales_item="insert into sale (p_no, pname, qty, rate, price, gst, tot_amount,
           Date,billno) values(%s, %s,%s,%s,%s,%s,%s,%s,%s)"
           cur_sales.executemany(sales_item,mylist)
           conn.commit()
           print("Data Successfully added")
```

Data from items table

```
Enter Your Choice!.....2
```

	pno	pid	product Name	Quantity	Rate	Amount
0	1	45	Samsung Mobile	20	12500.0	250000.0
1	2	12	Sumsung TV	10	25500.0	255000.0
2	3	03	IP	50	350.0	17500.0
3	4	45	CS Books	40	455.0	18200.0
4	5	065	IP With Python	50	500.0	25000.0

```
Apply %5 GST on Total Price
```

Now enter following details

```
Enter Product Number4
Product Name      Rate      qty    Price     %5 GST     Total Price
CS Books        455.0
Enter Bill Number101
Enter Quantity4
   Product_Number Product_name  Qty  Rate  ...   GST  Amount        Date Billno
0               4     CS Books    4   455  ...  91.0  1911.0  2021-01-19    101

[1 rows x 9 columns]
([4, 'CS Books', 4, 455, 1820.0, 91.0, 1911.0, datetime.date(2021, 1, 19), 101],)
Want to Save press Y or y or press N or n to add more itemsn
```

If press n than

```
Enter Product Number5
Product Name      Rate      qty    Price     %5 GST     Total Price
IP With Python        500.0
Enter Bill Number101
Enter Quantity4
   Product_Number    Product_name  Qty  Rate  ...    GST  Amount        Date Billno
0               4        CS Books    4   455  ...   91.0  1911.0  2021-01-19    101
1               5  IP With Python    4   500  ...  100.0  2100.0  2021-01-19    101

[2 rows x 9 columns]
([4, 'CS Books', 4, 455, 1820.0, 91.0, 1911.0, datetime.date(2021, 1, 19), 101], [5, 'IP With Python',
4, 500, 2000.0, 100.0, 2100.0, datetime.date(2021, 1, 19), 101])
Want to Save press Y or y or press N or n to add more itemsy
```

If press y than

```
Data Successfully added
```

Changes in sale table

```
mysql> select * from sale;
+---------+------+----------------+------+-------+--------+------+------------+------------+--------+
| sale_no | p_no | pname          | qty  | rate  | price  | gst  | tot_amount | Date       | billno |
+---------+------+----------------+------+-------+--------+------+------------+------------+--------+
|       1 |    1 | Samsung Mobile |    2 | 12500 |  25000 | 1250 |      26250 | 2021-01-17 |     40 |
|       2 |    2 | Sumsung TV     |    2 | 25500 |  51000 | 2550 |      53550 | 2021-01-17 |     40 |
|       3 |    1 | Samsung Mobile |    3 | 12500 |  37500 | 1875 |      39375 | 2021-01-17 |     40 |
|       4 |    1 | Samsung Mobile |    2 | 12500 |  25000 | 1250 |      26250 | 2021-01-17 |    100 |
|       5 |    3 | IP             |    3 |   350 |   1050 | 52.5 |     1102.5 | 2021-01-17 |     90 |
|       6 |    1 | Samsung Mobile |    4 | 12500 |  50000 | 2500 |      52500 | 2021-01-17 |     90 |
|       7 |    1 | Samsung Mobile |    4 | 12500 |  50000 | 2500 |      52500 | 2021-01-17 |     34 |
|       8 |    2 | Sumsung TV     |    4 | 25500 | 102000 | 5100 |     107100 | 2021-01-17 |     34 |
|       9 |    4 | CS Books       |    4 |   455 |   1820 |   91 |       1911 | 2021-01-19 |    101 |
|      10 |    5 | IP With Python |    4 |   500 |   2000 |  100 |       2100 | 2021-01-19 |    101 |
+---------+------+----------------+------+-------+--------+------+------------+------------+--------+
10 rows in set (0.00 sec)
```

When press 3

if choice==3:

```
    get_bill_no="select billno from sale order by sale_no desc limit 1"
    cur_billno.execute(get_bill_no)
    get_b=cur_billno.fetchall()
    print("billno..",get_b)
    cname=input("Enter Customer Name")
    bi=int(input("Enter Bill Number"))
    datain=(cname,bi)
    qry="insert into customer (c_name,billno) values(%s,%s)"
    cur_customer.execute(qry,datain)
    conn.commit()
    print("Data Sucessfully added")
    print("Data")
    mydata=(bi,)
```

```
    selectqry="select c_name,sale.billno,pname,qty,rate,price,gst,tot_amount,Date\
    from customer,sale where sale.billno=customer.billno and customer.billno=%s"
    cur_print.execute(selectqry,mydata)
    get_rec=cur_print.fetchall()
    pp=pd.DataFrame(get_rec)
    print(pp)
```

```
Enter Your Choice!.....3
billno.. [(101,)]
Enter Customer NameRahul Singh Dev
Enter Bill Number101
Data Sucessfully added
Data
                0    1              2  3  ...       5      6       7           8
0  Rahul Singh Dev  101        CS Books  4  ...  1820.0   91.0  1911.0  2021-01-19
1  Rahul Singh Dev  101  IP With Python  4  ...  2000.0  100.0  2100.0  2021-01-19
```

Changes in customer table

```
mysql> select * from customer
+------------------+---------+
| c_name           | billno  |
+------------------+---------+
| sunil            |       1 |
| poonam           |      50 |
| Sunil            |      40 |
| Poonam Bhatt     |     100 |
| Ram Singh        |      90 |
| Ravi             |      34 |
| Rahul Singh Dev  |     101 |
+------------------+---------+
7 rows in set (0.02 sec)
```

When press 4

```
if choice==4:
    bi=int(input("Enter Bill Number"))
    mydata=(bi,)
    selectqry="select c_name,sale.billno,pname,qty,rate,price,gst,tot_amount,Date\
    from customer,sale where sale.billno=customer.billno and customer.billno=%s"
    cur_print.execute(selectqry,mydata)
    get_rec=cur_print.fetchall()
    for row in get_rec:
       na=row[0]
       bino=row[1]
       dat=row[8]
```

```
    report_format()
    print("_"*65)
    print("Name..",na,"   ","Bill Number..",bino,"    ","Date..",dat)
    print("_"*65)
    sqry="select pname,qty,rate,price,gst,tot_amount\
    from customer,sale where sale.billno=customer.billno and customer.billno=%s"
    cur_print.execute(sqry,mydata)
    g_rec=cur_print.fetchall()
    pp=pd.DataFrame(g_rec,columns=["Product","Qty","Rate","Price","GST","Total
    Amount"])
    print(pp)
    print("_"*65)
    print(" Total ","          ",pp["Qty"].sum(),"   ",pp["Total Amount"].sum())
```

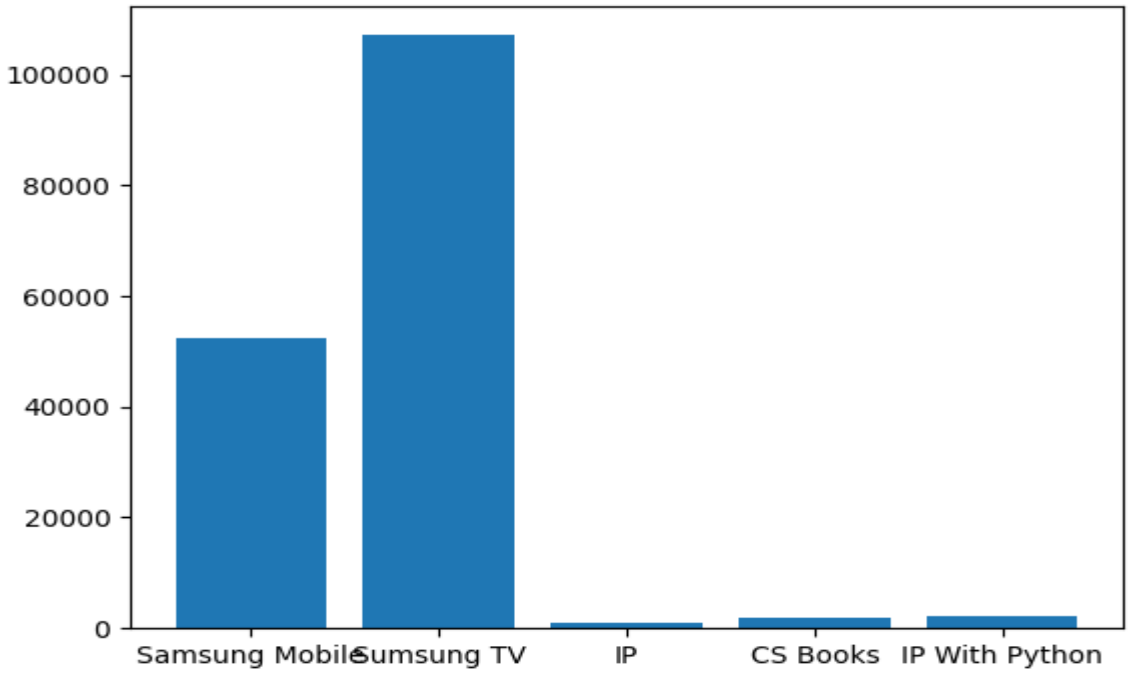
```
Enter Your Choice!.....4
Enter Bill Number101
****************************************************************
                        ABC COMPLEX
                   RAJIV NAGAR TELIBAGH
                        LUCKNOW
**********************CASH MEMO**********************************

_________________________________________________________________
Name.. Rahul Singh Dev     Bill Number.. 101      Date.. 2021-01-19
_________________________________________________________________
          Product  Qty   Rate   Price    GST  Total Amount
0        CS Books    4  455.0  1820.0   91.0        1911.0
1  IP With Python    4  500.0  2000.0  100.0        2100.0
_________________________________________________________________
 Total               8                               4011.0
```

When press 5

```
if choice==5:
    print("Graph")
    sqry="select pname,tot_amount\
    from customer,sale where sale.billno=customer.billno"
    cur_print.execute(sqry)
    g_rec=cur_print.fetchall()
    pp=pd.DataFrame(g_rec,columns=["Product","Total Amount"])
    print(pp)
    print("_"*65)
    #print(" Total ","          ",pp["Total Amount"])
```

```
    plt.bar(pp["Product"],pp["Total Amount"])
    plt.show()
print("Thank You!")
```

```
Enter Your Choice!.....5
Graph
            Product  Total Amount
0   Samsung Mobile        26250.0
1        Sumsung TV        53550.0
2   Samsung Mobile        39375.0
3   Samsung Mobile        26250.0
4               IP         1102.5
5   Samsung Mobile        52500.0
6   Samsung Mobile        52500.0
7        Sumsung TV       107100.0
8         CS Books         1911.0
9   IP With Python         2100.0
```



8. How to Restore SQL File

To install a MySQL database from a dump file (***bill.sql****), simply follow the following steps.*

Step 1: *Copy the bill.sql file in* ***C:\Program files\Mysql\MySql server 5.1\Bin*** *folder.*

Step 2: *Open MySQL and type the following command to create the dabase named school.*

mysql> create database school;

Step 3: *Open Command Window (Start ▸ Run ▸ cmd)*

Step 4: *Go to the following folder using CD command of DOS.*

C:\Program files\Mysql\MySql server 5.1\Bin>

Step 5: *type the following command on above prompt -*

C:….\bin> *mysql -u* ***root*** *–p sunilsir school < bill.sql*

This will create a shs databse with required tables.

8. Bibliography

In order to work on this project titled –**Bill *Management System*** the following Details of Fee material are refered by me during the various phases of development of the project.

(1) **http://www.mysql.org/**

(2) **http://www.python.org/**

(3) On-line Help of python

(4) Informatics Practices for class XII
-by Sumita Arora

(5) Various Websites of Discussion Forum and software development activities.

Other than the above-mentioned books, the suggestions and supervision of my teacher and my class experience also helped me to develop this software project.