MEERUT PUBLIC GIRLS' SCHOOL

SHASTRI NAGAR

MEERUT

ACADEMIC YEAR: 2021-2022

PROJECT REPORT

PASSPORT MANAGEMENT SYSTEM

NAME : VITARNA SHARMA AND ZAINAB

CLASS : XII-C, XII-G

SUBJECT : INFORMATICS PRACTICES

SUB CODE : 065

PROJECT GUIDE: Mrs. Shivali Goel

PGT (IP)

MEERUT PUBLIC GIRLS' SCHOOL

SHASTRI NAGAR, MEERUT

MEERUT PUBLIC GIRLS' SCHOOL

CERTIFICATE

This is to certify that **VITARNA SHARMA AND ZAINAB MALIK** of class XII of **MEERUT PUBLIC GIRLS' SCHOOL** have completed their project file under my guidance and supervision. I certify that this project is up to my expectations and as per the guidelines issued by the **CBSE.**

MRS.SHIVALI GOEL

(IP TEACHER)

(Signature)

Examiner:

Name:

Signature:

TABLE OF CONTENTS

ACKNOWLEDGEMENT

We take this opportunity to express our profound gratitude and deep regard to our guide **Mrs. Shivali Goel** for her exemplary guidance, monitoring and constant encouragement throughout the course of this project. Our thanks and appreciation also go to our parents and friends in developing the project and people who have willingly helped out with their abilities.

VITARNA SHARMA AND ZAINAB MALIK

XII-C and XII-G

INTRODUCTION

- **PASSPORT MANAGEMENT SYSTEM** is a management system where the management passport related work is computerized.
- Passport is one of the most basic requirements if you want to travel outside of India. In order to support the needs of passport of citizen, Government of India has established regional passport offices across the India in different cities.
- The dataset contains the data generated in this regional passport seva Kendra and the data is categorized in the different categories.
- In this project we are going to analyse the same dataset using Python Pandas. Besides pandas we have also used matplotlib python module for visualization of this dataset.
- The whole project is divided into four major parts, i.e., reading, analysis, visualization and export. All these parts are further divided into menus for easy navigation.

SOURCE CODE

```
import pandas as pd

import numpy as np

import time

import matplotlib.pyplot as plt


df =pd.DataFrame()

csv_file = "C:/Users/Shivi Sharma/Desktop/PassportSeva_1_12.csv"


def introduction():

    msg='''
```

Passport is one of the most basic requirements if you want to travel outside of India. In order to support the needs of passport of citizen, Government of India has established regional passport offices across the India in different cities.

The dataset contains the data generated in this regional passport seva kendra and the data is categorized in the different categories.

In this project we are going to analyze the same dataset using Python Pandas on windows machine but the project can be run on any machine which support Python and pandas. Besides pandas we have also used matplotlib python module for visualization of this dataset.

The whole project is divided into four major parts, i.e., reading, analysis, visualization and export. All these parts are further divided into menus for easy navigation.

```
        NOTE: Python is case-SENSITIVE so type exact Column Name wherever
required. \n\n\n\n'''
    for x in msg:
        print(x,end ='')
        time.sleep(0.002)
    wait = input('Press ENTER to continue.....')


def made_by():
    msg=''' Passport Management System made by          : VITARNA SHARMA ,
ZAINAB MALIK
            class                       : XII-C , XII-G
            School Name                 : MEERUT PUBLIC GIRL'S SCHOOL
            session                     : 2021-22



            Thanks for evaluating my Project.\n\n\n'''


    for x in msg:
        print(x, end='')
        time.sleep(0.002)
    wait = input('Press ENTER to continue.....')




def read_csv_file():
    df =pd.read_csv(csv_file)
    print(df)
```

```
# name of function      : clear
# purpose               : clear output screen
def clear():
   for x in range(65):
            print()



def data_analysis_menu():
       df = pd.read_csv(csv_file)
       while True:
          clear()
          print('\n\nData Analysis MENU ')
          print('_'*100)
          print('1.  Data summary\n')
          print('2.  Show Specific Column\n')
          print('3.  Add a New Record\n')
          print('4.  Add a New Column\n')
          print('5.  Delete a Column\n')
          print('6.  Delete a Record\n')
          print('7.  RPO Report \n')
          print('8.  Scheme Type Report \n')
          print('9.  Exit (Move to main menu)\n')
          ch = int(input('Enter your choice:'))
          if ch == 1:
```

```
            print(df)
            wait = input()
        if ch == 2:
            print(df.columns)
            col_name = input('Enter Column Name that You want to print : ')
            print(df[col_name])
            wait = input()
        if ch==3:
            a = input('Enter service Name :')
            b = input('Enter New Rpo Name :')
            c = input(' Enter New Scheme Type :')
            d= int(input('Enter Total LastWeekCount :'))
            e = int(input('Enter LastMonthCount :'))
            f = int(input('Enter YearTillDate :'))
            g = input('Enter Date of Entry')

data={'ServiceName':a,'RpoName':b,'SchemeType':c,'LastWeekCount':d,'LastM
onthCount':e,'YearTillDate':f,'Date':g}
            df = df.append(data,ignore_index=True)
            print(df)
            wait=input()
        if ch==4:
            col_name = input('Enter new column name :')
            col_value = int(input('Enter default column value :'))
            df[col_name]=col_value
            print(df)
            print('\n\n\n Press enter to continue....')
```

```
            wait=input()


        if ch==5:
            col_name =input('Enter column Name to delete :')
            del df[col_name]
            print(df)
            print('\n\n\n Press enter to continue....')
            wait=input()


        if ch==6:
            index_no =int(input('Enter the Index Number that You want to delete
:'))
            df = df.drop(df.index[index_no])
            print(df)
            print('\n\n\n Press enter to continue....')
            wait = input()


        if ch==7:
            print(df.columns)
            print(df['RpoName'].unique())
            rp= input('Enter Rpo Name ')
            g = df.groupby('RpoName')
            print('Rpo Name ', rp)
            print(g['YearTillDate'].sum())
            print('\n\n\n Press enter to continue....')
            wait=input()
```

```
            if ch==8:
                df1=df.SchemeType.unique()
                print('Available Schemes :',df1)
                print('\n\n')
                schName =input('Enter Scheme Type :')
                df1=df[df.SchemeType==schName]
                print(df1)
                print('\n\n\n Press enter to continue....')
                wait = input()

            if ch == 9:
                break


# name of function      : graph
# purpose               : To generate a Graph menu
def graph():
    df = pd.read_csv(csv_file)
    while True:
        clear()
        print('\nGRAPH MENU ')
        print('_'*100)
        print('1.  LINE Graph On Total Passport Served In Different States/Cities\n')
        print('2.  Bar Graph On Total Passport Served In Different States/Cities\n')
        print('3.  Bar Graph On RPO Report by user defined condition\n')
        print('4.  Bar Graph On Scheme Type by user defined condition\n')
```

```
print('5.  Exit (Move to main menu)\n')
ch = int(input('Enter your choice:' ))

if ch==1:
    g = df.groupby('RpoName')
    x = df['RpoName'].unique()
    y = g['YearTillDate'].sum()
    plt.xticks(rotation='vertical')
    plt.xlabel('Regional Offices')
    plt.ylabel('Total Passport served')
    plt.title('Passport served')
    plt.grid(True)
    plt.plot(x, y)
    plt.show()

if ch==2:
    g = df.groupby('RpoName')
    x = df['RpoName'].unique()
    y = g['YearTillDate'].sum()
    plt.xticks(rotation='vertical')
    plt.xlabel('Regional Offices')
    plt.ylabel('Total Passport served')
    plt.title('Passport served')
    plt.bar(x, y)
    plt.grid(True)
    plt.show()
```

```
    wait = input()


if ch==3:
    rponames=df['RpoName'].unique()
    print(rponames)
    rpo=input('Enter RpoName as shown It is Case Sensitive : ')
    x = df[df.RpoName==rpo].SchemeType
    y = df[df.RpoName==rpo].LastWeekCount
    plt.bar(x,y)
    plt.xticks(rotation='vertical')
    plt.grid(True)
    plt.title(rpo)
    plt.xlabel('Scheme Types')
    plt.show()
    wait= input()


if ch==4:
    schemes = df.SchemeType.unique()
    print('Available Schemes :',schemes)
    print('\n')
    schName = input('Enter Scheme Type Name :')
    names = df[df.SchemeType==schName].RpoName
    counting = df[df.SchemeType==schName].LastMonthCount
    plt.xticks(rotation='vertical')
    plt.grid(True)
    plt.title(schName)
```

```
            plt.xlabel('Regional Passport Office')
            plt.ylabel('No. Of applications')
            plt.bar(names,counting)
            plt.show()

        if ch==5:
            break



# function name         : export_menu
# purpose               : function to generate export menu
def export_menu():
    df = pd.read_csv(csv_file)
    while True:
        clear()
        print('\n\nEXPORT MENU ')
        print('_'*100)
        print()
        print('1.  CSV File\n')
        print('2.  Exit (Move to main menu)')
        ch = int(input('Enter your Choice : '))

        if ch==1:
            df.to_csv('C:/Users/Shivi Sharma/Desktop/newPassport.csv')
            print('\n\nCheck your new file "newPassport.csv"  on desktop')
            wait = input()
```

```
        if ch == 2:
            break

def main_menu():
        clear()
        introduction()
        while True:
                clear()
                print('MAIN MENU ')
                print('_'*100)
                print()
                print('1.  Read CSV File\n')
                print('2.  Data Analysis Menu\n')
                print('3.  Graph Menu\n')
                print('4.  Export Data\n')
                print('5.  Exit\n')
                choice = int(input('Enter your choice :'))

                if choice==1:
                        print('We need to add two number')
                        read_csv_file()
                        wait=input()

                if choice==2:
                        print('We need to subtract two number')
```

```
                data_analysis_menu()
                wait=input()

            if choice==3:
                graph()
                wait=input()

            if choice==4:
                export_menu()
                wait=input()

            if choice==5:
                break
        clear()
        made_by()

# call your main menu
main_menu()
```

OUTPUT

```
Passport is one of the most basic requirements if you want to travel outside of India. In order to support the needs of passport of citizen, Government of India has established regional pa
ssport offices across the India in different cities.

The dataset contains the data generated in this regional passport seva kendra and the data is categorized in the different categories.

In this project we are going to analyze the same dataset using Python Pandas on windows machine but the project can be run on any machine which support Python and pandas. Besides pandas we
have also used matplotlib python module for visualization of this dataset.

The whole project is divided into four major parts, i.e., reading, analysis, visualization and export. All these parts are further divided into menus for easy navigation.

        NOTE: Python is case-SENSITIVE so type exact Column Name wherever required.


Press ENTER to continue....
```

```
MAIN MENU
-----------------------------------------------------------------------

1.  Read CSV File

2.  Data Analysis Menu

3.  Graph Menu

4.  Export Data

5.  Exit

Enter your choice :1
We need to add two number
                                ServiceName  ...      Date
0      Applications Received - Scheme wise  ...  29:09.0
1      Applications Received - Scheme wise  ...  29:09.0
2      Applications Received - Gender wise  ...  29:09.0
3      Applications Received - Gender wise  ...  29:09.0
4         Applications with Aadhaar Number  ...  29:09.0
..                                     ...  ...      ...
742  Applications Received - Service Wise  ...  29:09.0
743  Applications Received - Service Wise  ...  29:09.0
744    Applications Granted - PV Mode wise  ...  29:09.0
745    Applications Granted - PV Mode wise  ...  29:09.0
746    Applications Granted - PV Mode wise  ...  29:09.0

[747 rows x 7 columns]
```

```
Data Analysis MENU
-----------------------------------------------------------------------
1.  Data summary

2.  Show Specific Column

3.  Add a New Record

4.  Add a New Column

5.  Delete a Column

6.  Delete a Record

7.  RPO Report

8.  Scheme Type Report

9.  Exit (Move to main menu)

Enter your choice:1
                                ServiceName  ...      Date
0      Applications Received - Scheme wise  ...  29:09.0
1      Applications Received - Scheme wise  ...  29:09.0
2      Applications Received - Gender wise  ...  29:09.0
3      Applications Received - Gender wise  ...  29:09.0
4         Applications with Aadhaar Number  ...  29:09.0
..                                     ...  ...      ...
742  Applications Received - Service Wise  ...  29:09.0
743  Applications Received - Service Wise  ...  29:09.0
744    Applications Granted - PV Mode wise  ...  29:09.0
745    Applications Granted - PV Mode wise  ...  29:09.0
746    Applications Granted - PV Mode wise  ...  29:09.0

[747 rows x 7 columns]
```

```
Data Analysis MENU
1.  Data summary

2.  Show Specific Column

3.  Add a New Record

4.  Add a New Column

5.  Delete a Column

6.  Delete a Record

7.  RPO Report

8.  Scheme Type Report

9.  Exit (Move to main menu)

Enter your choice:3
Enter service Name :application received gender wise
Enter New Rpo Name :RPO GOA
 Enter New Scheme Type :FEMALE
Enter Total LastWeekCount :3456
Enter LastMonthCount :5467
Enter YearTillDate :68780
Enter Date of Entry23:4:7
                          ServiceName  ...     Date
0      Applications Received - Scheme wise  ...  29:09.8
1      Applications Received - Scheme wise  ...  29:09.8
2      Applications Received - Gender wise  ...  29:09.8
3      Applications Received - Gender wise  ...  29:09.8
4         Applications with Aadhaar Number  ...  29:09.8
..                                     ...  ...     ...
743  Applications Received - Service Wise  ...  29:09.8
744    Applications Granted - PV Mode wise  ...  29:09.8
745    Applications Granted - PV Mode wise  ...  29:09.8
746    Applications Granted - PV Mode wise  ...  29:09.8
747       application received gender wise  ...   23:4:7

[748 rows x 7 columns]
```

```
Data Analysis MENU
1.  Data summary

2.  Show Specific Column

3.  Add a New Record

4.  Add a New Column

5.  Delete a Column

6.  Delete a Record

7.  RPO Report

8.  Scheme Type Report

9.  Exit (Move to main menu)

Enter your choice:4
Enter new column name :GENDER
Enter default column value :10
                          ServiceName            RpoName  ...     Date  GENDER
0      Applications Received - Scheme wise      RPO Ahmedabad  ...  29:09.8      10
1      Applications Received - Scheme wise      RPO Ahmedabad  ...  29:09.8      10
2      Applications Received - Gender wise      RPO Ahmedabad  ...  29:09.8      10
3      Applications Received - Gender wise      RPO Ahmedabad  ...  29:09.8      10
4         Applications with Aadhaar Number      RPO Ahmedabad  ...  29:09.8      10
..                                     ...                ...  ...     ...     ...
743  Applications Received - Service Wise  RPO Visakhapatnam  ...  29:09.8      10
744    Applications Granted - PV Mode wise  RPO Visakhapatnam  ...  29:09.8      10
745    Applications Granted - PV Mode wise  RPO Visakhapatnam  ...  29:09.8      10
746    Applications Granted - PV Mode wise  RPO Visakhapatnam  ...  29:09.8      10
747       application received gender wise              RPO GOA  ...   23:4:7      10

[748 rows x 8 columns]


 Press enter to continue...
```

```
Data Analysis MENU
1.  Data summary
2.  Show Specific Column
3.  Add a New Record
4.  Add a New Column
5.  Delete a Column
6.  Delete a Record
7.  RPO Report
8.  Scheme Type Report
9.  Exit (Move to main menu)
Enter your choice:5
Enter column Name to delete :GENDER
                                ServiceName  ...      Date
0      Applications Received - Scheme wise  ...  29:09.8
1      Applications Received - Scheme wise  ...  29:09.8
2      Applications Received - Gender wise  ...  29:09.8
3      Applications Received - Gender wise  ...  29:09.8
4         Applications with Aadhaar Number  ...  29:09.8
..                                     ...  ...       ...
743  Applications Received - Service Wise  ...  29:09.8
744    Applications Granted - PV Mode wise  ...  29:09.8
745    Applications Granted - PV Mode wise  ...  29:09.8
746    Applications Granted - PV Mode wise  ...  29:09.8
747       application received gender wise  ...   23:4:7
[748 rows x 7 columns]

 Press enter to continue....
```

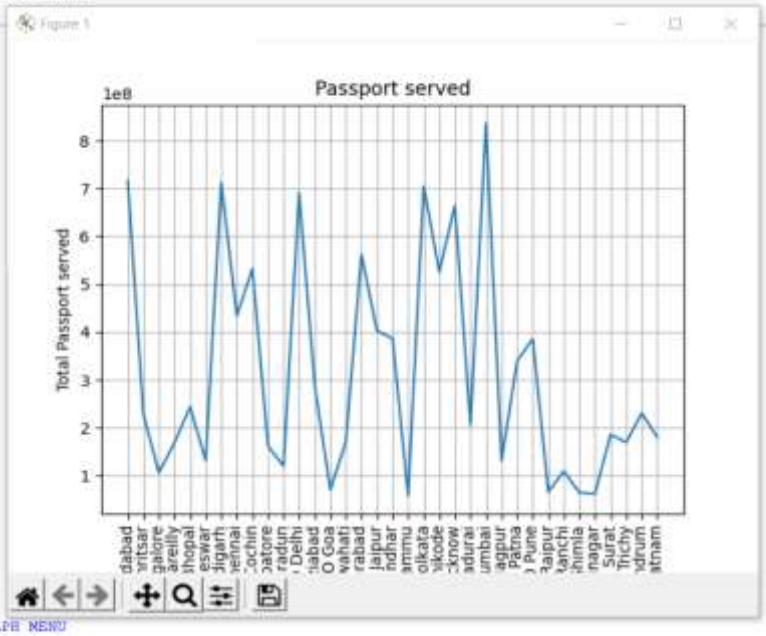
```
Data Analysis MENU
1.  Data summary
2.  Show Specific Column
3.  Add a New Record
4.  Add a New Column
5.  Delete a Column
6.  Delete a Record
7.  RPO Report
8.  Scheme Type Report
9.  Exit (Move to main menu)
Enter your choice:6
Enter the Index Number that You want to delete :3
                                ServiceName  ...      Date
0      Applications Received - Scheme wise  ...  29:09.8
1      Applications Received - Scheme wise  ...  29:09.8
2      Applications Received - Gender wise  ...  29:09.8
4         Applications with Aadhaar Number  ...  29:09.8
5           Applications - Education Wise  ...  29:09.8
..                                     ...  ...       ...
743  Applications Received - Service Wise  ...  29:09.8
744    Applications Granted - PV Mode wise  ...  29:09.8
745    Applications Granted - PV Mode wise  ...  29:09.8
746    Applications Granted - PV Mode wise  ...  29:09.8
747       application received gender wise  ...   23:4:7
[747 rows x 7 columns]

 Press enter to continue....
```

```
MAIN MENU
-----------------------------------------------------------------------
1.  Read CSV File
2.  Data Analysis Menu
3.  Graph Menu
4.  Export Data
5.  Exit
Enter your choice :3
```

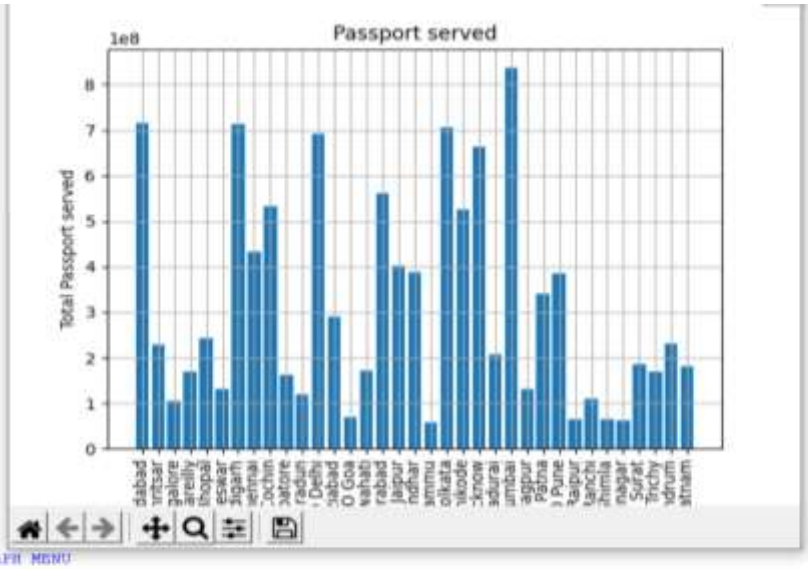
```
GRAPH MENU
-----------------------------------------------------------------------
1.  LINE Graph On Total Passport Served In Different States/Cities
2.  Bar Graph On Total Passport Served In Different States/Cities
3.  Bar Graph On RPO Report by user defined condition
4.  Bar Graph On Scheme Type by user defined condition
5.  Exit (Move to main menu)
Enter your choice:
```

IDLE Shell 3.9.1

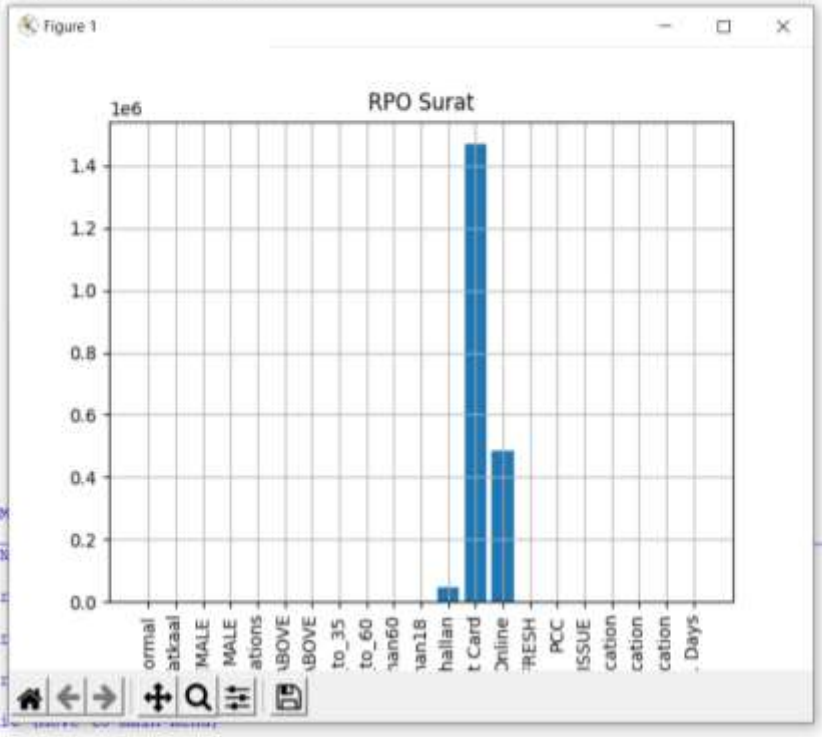
File



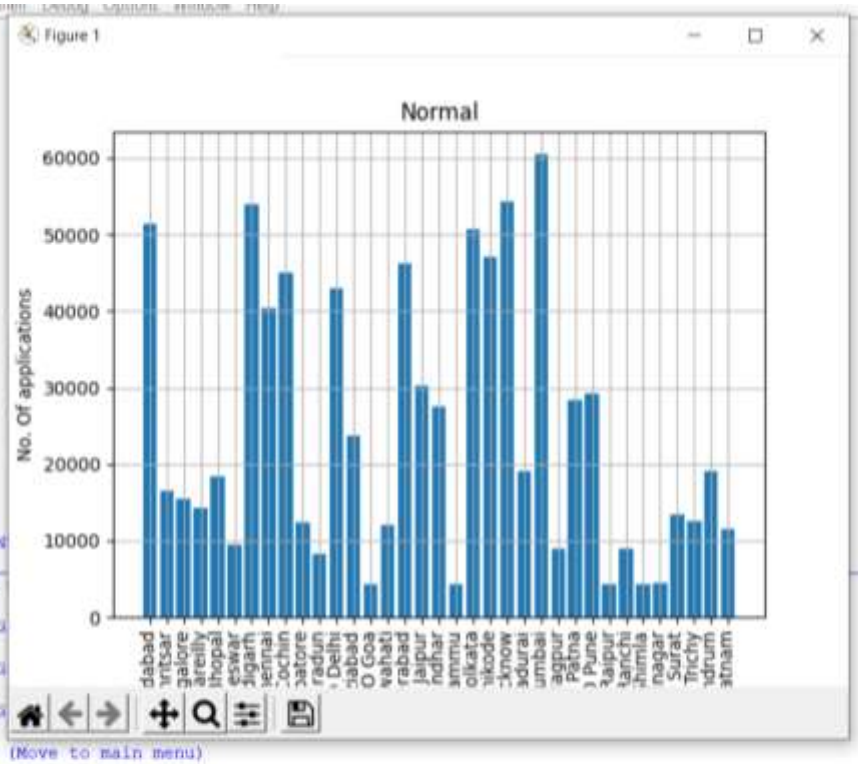

```
GRAPH MENU
-----------------------------------------------------------------------
1.  LINE Graph On Total Passport Served In Different States/Cities
2.  Bar Graph On Total Passport Served In Different States/Cities
3.  Bar Graph On RPO Report by user defined condition
4.  Bar Graph On Scheme Type by user defined condition
5.  Exit (Move to main menu)
Enter your choice:1
```




```
GRAPH MENU
_____________________________________________________________________
1.  LINE Graph On Total Passport Served In Different States/Cities

2.  Bar Graph On Total Passport Served In Different States/Cities

3.  Bar Graph On RPO Report by user defined condition

4.  Bar Graph On Scheme Type by user defined condition

5.  Exit (Move to main menu)

Enter your choice:2
```




```
Enter your choice:3
['RPO Ahmedabad' 'RPO Amritsar' 'RPO Bangalore' 'RPO Bareilly'
 'RPO Bhopal' 'RPO Bhubaneswar' 'RPO Chandigarh' 'RPO Chennai'
 'RPO Cochin' 'RPO Coimbatore' 'RPO Dehradun' 'RPO Delhi' 'RPO Ghaziabad'
 'RPO Goa' 'RPO Guwahati' 'RPO Hyderabad' 'RPO Jaipur' 'RPO Jalandhar'
 'RPO Jammu' 'RPO Kolkata' 'RPO Kozhikode' 'RPO Lucknow' 'RPO Madurai'
 'RPO Mumbai' 'RPO Nagpur' 'RPO Patna' 'RPO Pune' 'RPO Raipur'
 'RPO Ranchi' 'RPO Shimla' 'RPO Srinagar' 'RPO Surat' 'RPO Trichy'
 'RPO Trivandrum' 'RPO Visakhapatnam']
Enter RpoName as shown It is Case Sensitive : RPO Surat
```




```
GRAPH MEN
1.  LINE
2.  Bar G
3.  Bar G
4.  Bar G
5.  Exit (Move to main menu)

Enter your choice:4
Available Schemes : ['Normal' 'Tatkaal' 'FEMALE' 'MALE' 'Count of Applications'
 '10TH PASS AND ABOVE' 'GRADUATE AND ABOVE' 'Between_18_to_35'
 'Between_36_to_60' 'GreaterThan60' 'LessThan18' 'Challan'
 'Credit/ Debit Card' 'Online' 'FRESH' 'PCC' 'REISSUE' 'No Verification'
 'Post Verification' 'Pre Verification' 'Within 21 Days'
 'More than 21 Days' '5TH PASS OR LESS' 'BETWEEN 6TH AND 9TH STANDARD']

Enter Scheme Type Name :Normal
```

```
EXPORT MENU
_____

1.  CSV File

2.  Exit (Move to main menu)
Enter your Choice : 1


Check your new file "newPassport.csv"  on desktop
```

```
Passport Management System made by              : VITARNA SHARMA , ZAINAB MALIK
          class                                  : XII-C , XII-G
          School Name                            : MEERUT PUBLIC GIRL'S SCHOOL
          session                                : 2021-22


          Thanks for evaluating my Project.

Press ENTER to continue.....
```

HARDWARE AND SOFTWARE REQUIREMENTS

Hardware requirements:

- A Computer/ Laptop With Operating System Windows 7 Or Above / Mac OS / Linux
- Keyboard
- Mouse

Software requirements:

- Python 3.6.x or higher version preinstalled
- Pandas library preinstalled
- NumPy library preinstalled
- Matplotlib library preinstalled
- Microsoft Excel Comma Separated Values File (.csv) preinstalled

BIBLIOGRAPHY

- NCERT
- Preeti Arora
- YouTube
- Internet
- Data.gov.in

Thank You