

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, NAYA RAIPUR

SOFTWARE DEVELOPMENT: PROJECT REPORT

Complaint Registration System for Railways

Group Number: 06

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Introduction

Our project was to create complaint registration system for railway.
Our project is a terminal program with two different types of users:

1. **Administrator:** to manage complaints. It has the following functions:

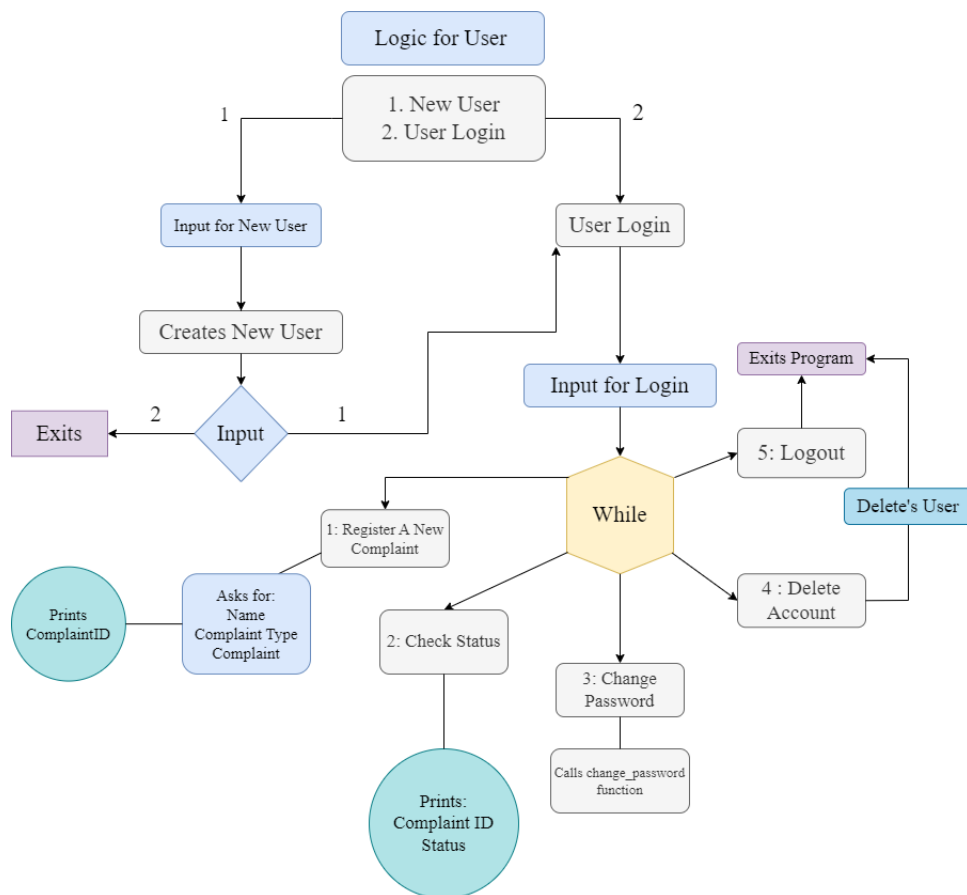
- (a) Print all complaints.
- (b) Print sorted complaints based on status.
- (c) Filter complaints based on complaint type.
- (d) Delete a complaint.
- (e) Add a new complaint type.
- (f) Update status of complaint.
- (g) Change your password.
- (h) Delete your account.

2. **User:** to register complaints. It has the following functions:

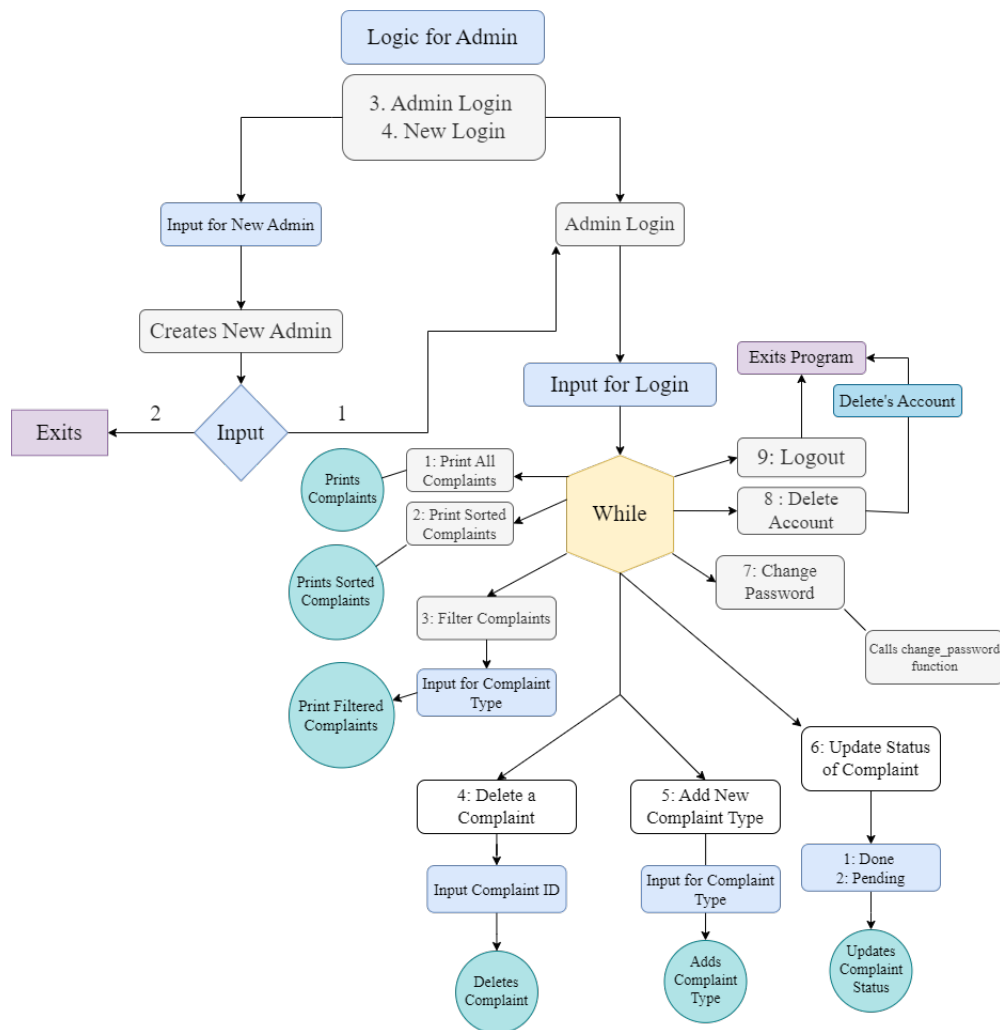
- (a) Register a new complaint.
- (b) Check status of a registered complaint.
- (c) Change your password.
- (d) Delete you account.

Flowchart of Main Logic

User Logic



Admin Logic



Code Explanation

Our Project consists of 9 main files:

1. Code Files

(a) user.py

It contains a class called User and functions related to managing users. The class has three parameters a name, an email and a password. It also contains various class methods to perform actions like user login, changing passwords, check email. It contains a method called writeuser to write a user to the csv file. The file also contains functions to create a new user, delete a user account, etc.

(b) admin.py

It contains a class called Admin which inherits from the User class. The class contains various class methods related to admin functionality. It has functions to print, sort, filter, delete and change status of user complaints. It also has the function to add a new complaint type.

(c) complaints.py

It contains a class called Complaint. The class contains class methods to register a new complaint, generate a complaint ID, etc.

(d) getfunctions.py

This file has various functions to get valid input from the user. It has an get int function to get a integer input and reject non-integer inputs. It also getemail and getpassword functions to ensure that a user only enters a valid email ID or password.

(e) project.py

This program contains the main logic of the program which calls upon the various functions present in the other files to complete the project.

2. Data Storage Files

- (a) UserLogin.csv
Stores the name, email ID and password of a user in csv file.
- (b) AdminLogin.csv
Stores the name, email ID and password of a admin in a csv file.
- (c) complaints.csv
Stores complaints given by the various users. It stores the date, Complaint ID, name, complaint, complaint type, status in a csv file.
- (d) types.txt
It stores the types of complaints accepted by the program in a text file.

Code

Main Project File

```
from user import User
from user import new_user
from user import delete_account
from complaints import Complaint
from complaints import new_complaint
import getfunctions
from admin import Admin

def main():
    introduction_text = """Welcome to Railway's Online Complaint Registration System!
Press Respective Key to Perform Operations
1: New User
2: User Login
3: Admin Login
4: New Admin
5: Exit"""
    print(introduction_text)
    user_input = getfunctions.get_int(5)
    if user_input == 1:
        new_account = new_user()
        new_account.write_user("UserLogin.csv")
        after_new_account = """A new account has been created. What would you like to do next?
1: Login
2: Exit"""
        print(after_new_account)
        new_input = getfunctions.get_int(2)
        if new_input == 1:
            user_input = 2

    if user_input == 2:
        email = input("Email: ")
        if User.login(email, "UserLogin.csv") == True:
            while True:
                action_text = """What would you like to do?
1: Register a New Complaint
2: Check Status of Complaint
3: Change Password
4: Delete Account
5: Logout"""
                print(action_text)
                login_input = getfunctions.get_int(5)
                if login_input == 4:
                    delete_account("UserLogin.csv", email)
                    break
```

```

        if login_input == 5:
            print("Logout Successful")
            break
        else:
            user_login_actions(login_input, email)
    if user_input == 4:
        new_admin_account = new_user()
        new_admin_account.write_user("AdminLogin.csv")
        print(after_new_account)
        new_admin_input = getfunctions.get_int(2)
        if new_admin_input == 1:
            user_input = 3

    if user_input == 3:
        email = input("Email: ")
        if Admin.login(email, "AdminLogin.csv") == True:
            while True:
                admin_text = """What would you like to do?
1: Print All Complaints
2: Print Sorted Complaints
3: Filter Complaints Based on Type
4: Delete a Complaint
5: Add New Complaint Type
6: Update Status of Complaint
7: Change Password
8: Delete Account
9: Logout"""
                print(admin_text)
                admin_input = getfunctions.get_int(9)
                admin_login_actions(admin_input, email)
                if admin_input == 8:
                    delete_account("AdminLogin.csv", email)
                    break
                if admin_input == 9:
                    print("Logout Successful")
                    break

def user_login_actions(login_input, email):
    if login_input == 1:
        new = new_complaint(email)
        new.register_complaint()
    elif login_input == 2:
        user_complaints = Complaint.complaint_status(email)
        Complaint.print_status(user_complaints)
    elif login_input == 3:
        User.change_password(email, "UserLogin.csv")

def admin_login_actions(admin_input, email):
    if admin_input == 1:
        Admin.print_complaints()
    if admin_input == 2:
        Admin.sort()
    if admin_input == 3:
        Admin.filter(Complaint.type())
    if admin_input == 4:
        Admin.delete(getfunctions.get_complaintID())
    if admin_input == 5:
        Admin.add_type()
    if admin_input == 6:

```

```

        Admin.change_status(getfunctions.get_complaintID())
    if admin_input == 7:
        User.change_password(email, "AdminLogin.csv")

if __name__ == "__main__":
    main()

```

User Functions File

```

import getfunctions
import csv

class User:
    def __init__(self, name = '', email = '', password = ''):
        self.name = name
        self.email = email
        self.password = password

    def write_user(self, file_name):
        with open(file_name, "a", newline='') as login_file:
            input_list = [self.name, self.email, self.password]
            writer = csv.writer(login_file)
            writer.writerow(input_list)

    @classmethod
    def check_email(cls, login_email, filename):
        flag = 0
        counter = 0
        with open(filename, "r") as file:
            reader = csv.reader(file)
            for row in reader:
                if row[1] == login_email:
                    flag = flag + 1
                    break
            counter = counter + 1
        if flag == 1:
            return counter
        else:
            while True:
                print("No such email ID was found.")
                print("Please try again or press 1 to exit.")
                email = input("Email: ")
                if email == "1":
                    return 0
                check = cls.check_email(email, filename)
                return check

    @classmethod
    def login(cls, email, filename):
        check = cls.check_email(email, filename)
        if check != 0:
            with open(filename, "r") as file:
                reader = csv.reader(file)
                rows = list(reader)
                login_password = input("Password: ").strip()
                while True:
                    if login_password == rows[check][2]:
                        print("Login Successful!")
                        return True
                    else:

```

```

        print("Entered password is incorrect.")
        print("Please try again or Press 1 to exit.")
        login_password = input("Password: ").strip()
        if login_password == "1":
            return False
    else:
        return False

@classmethod
def change_password(cls, email, filename):
    print("Please Enter a New Password")
    password = getfunctions.get_password()
    with open(filename, "r") as file:
        reader = csv.reader(file)
        content = []
        for row in reader:
            if row[1] == email:
                row[2] = password
            content.append(row)

    with open(filename, "w+", newline='') as file:
        writer = csv.writer(file)
        writer.writerows(content)
    print("Password Changed Successfully")

def new_user():
    print("To create a new account please provide us with the following details.")
    name = input("Name: ").strip()
    while True:
        email = getfunctions.get_email()
        found = login_check(email)
        if found == False:
            break
        else:
            print("You already have an account.")
            print("If you want to create a new one, please use a different email ID.")
    print("Please create a new password.")
    password = getfunctions.get_password()
    return User(name, email, password)

def login_check(email):
    with open("UserLogin.csv", "r") as file:
        reader = csv.reader(file)
        for row in reader:
            if row[1] == email:
                return True
    return False

def delete_account(filename, email):
    found = False
    with open(filename, 'r') as file:
        content = []
        reader = csv.reader(file)
        for row in reader:
            if row[1] == email:
                found = True
            else:
                content.append(row)
    if found == True:

```



```

with open(filename, 'w+', newline = '') as file:
    writer = csv.writer(file)
    writer.writerows(content)
print("Your Account has been Successfully Deleted")

```

Admin Functions File

```

from user import User
import csv
from prettytable import PrettyTable
import getfunctions

class Admin(User):
    def __init__(self, name, email, password):
        super().__init__(name, email, password)

    @classmethod
    def print_complaints(cls):
        with open("complaints.csv", "r") as file:
            reader = csv.reader(file)
            x = PrettyTable()
            x.field_names = next(reader)
            for row in reader:
                x.add_row(row)
            print(x)

    @classmethod
    def change_status(cls, complaintID):
        change_text = """What would you like the new status to be?
1: Done
2: Pending"""
        print(change_text)
        change_input = getfunctions.get_int(2)
        done = "Done"
        pending = "Pending"
        found = False
        with open("complaints.csv", "r") as file:
            reader = csv.reader(file)
            content = []
            for row in reader:
                if str(complaintID) == row[1]:
                    found = True
                    if change_input == 1:
                        row[6] = done
                    if change_input == 2:
                        row[6] = pending
                    content.append(row)

        if found == False:
            print("No such complaint exists!")

        if found == True:
            with open("complaints.csv", "w+", newline='') as file:
                writer = csv.writer(file)
                writer.writerows(content)
            print("Status Changed Successfully!")

```

```

@classmethod
def sort(cls):
    sorted_content = []
    with open("complaints.csv", "r") as file:
        reader = csv.reader(file)
        for row in reader:
            if row[6] == "Pending":
                sorted_content.append(row)

    with open("complaints.csv", "r") as file:
        reader = csv.reader(file)
        for row in reader:
            if row[6] == "Done":
                sorted_content.append(row)

    x = PrettyTable()
    x.field_names = ["Date", "ComplaintID", "Name", "Email", "Complaint", "Complaint Type", "Status"]
    for row in sorted_content:
        x.add_row(row)
    print(x)

@classmethod
def filter(cls, complaint_type):
    filtered_content = []
    with open("complaints.csv", "r") as file:
        reader = csv.reader(file)
        for row in reader:
            if row[4] == complaint_type:
                filtered_content.append(row)
    x = PrettyTable()
    x.field_names = ["Date", "ComplaintID", "Name", "Email", "Complaint", "Complaint Type", "Status"]
    for row in filtered_content:
        x.add_row(row)
    print(x)

@classmethod
def delete(cls, complaintID):
    found = False
    with open("complaints.csv", "r") as file:
        reader = csv.reader(file)
        content = []
        for row in reader:
            if str(complaintID) == row[1]:
                found = True
            else:
                content.append(row)
    if found == False:
        print("No such complaint exists!")

    if found == True:
        with open("complaints.csv", "w+", newline='') as file:
            writer = csv.writer(file)
            writer.writerows(content)
        print("Complaint Deleted Successfully!")

@classmethod
def add_type(cls):
    new_complaint_type = input("Enter New Complaint Type: ").strip()
    content = []

```

```

with open("types.txt", "r", newline='') as file:
    for row in file:
        content.append(row)
content.append(new_complaint_type + '\r\n')
with open("types.txt", "w", newline='') as file:
    file.writelines(content)
print("New Complaint Type Added")

```

getfunctions File

```

import re

def get_int(length):
    while True:
        try:
            n = int(input("Input: "))
            if n in range(1, length + 1):
                return n
            else:
                print("Number greater than ", length)
        except ValueError:
            print("Please Enter an Integer")

def get_email():
    pattern = r'^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$'
    while True:
        email = input("Email: ").strip()
        if re.match(pattern, email, re.IGNORECASE):
            return email
        else:
            print("Please enter a valid Email")

def get_password():
    print("A password must contain atleast an lowercase, uppercase, number and a special character")
    pattern = r'^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?=.*[@$!%*#?&])[A-Za-z\d@$!#%*?&]+$'
    while True:
        password = input("Password: ").strip()
        if re.match(pattern, password):
            return password
        else:
            print("Please enter a valid password")

def get_complaintID():
    while True:
        try:
            complaintID_string = input("Enter Complaint ID: ")
            complaintID_integer = int(complaintID_string)
            if len(complaintID_string) == 11:
                return complaintID_integer
            else:
                print("Please enter a valid Complaint ID")
        except ValueError:
            print("Please enter an integer")

```

CSV Files

AdminLogin.csv

```
1 Name, email, password Bhavik Sachdev
2 Admin,admin@admin.com,Admin@123
```

UserLogin.csv

```
1 Name, Email, Password
2 Bhavik Sachdev,b.sachdev1904@gmail.com,Bh@vik1234
3 Lokesh,lokesh@gmail.com,Lokesh@123
4 Amritanshu,A@g.com,Amritanshu@123
5 Birbal Barik,birbal@iiitnr.com,Birbal@123
6 Abhinay,abhinay@gmail.com,Abinay@123
7 Arman Singh,arman@gmail.com,Arman@1234
8 |
```

complaints.csv

```
1 Date,ComplaintID,Name,Email,Complaint Type,Complaint,Status
2 2023-02-14,20230214000,Bhavik Sachdev,b.sachdev1904@gmail.com,Delays and Cancellations,Train to Jabalpur was delayed.,Done
3 2023-02-14,20230214001,Bhavik Sachdev,b.sachdev1904@gmail.com,Overcrowding,Train to Bhopal had many passengers with no tickets.,Pending
4 2023-02-14,20230214002,Lokesh,lokesh@gmail.com,Overcrowding,Test Complaint,Pending
5 2023-02-14,20230214003,Amritanshu,A@g.com,Poor Maintainance,No clean bedsheets on the train to Jabalpur,Pending
6 2023-02-14,20230214004,Birbal Barik,birbal@iiitnr.com,Other,Raipur Railway Station platform's were not clean.,Pending
7 2023-02-14,20230214005,Birbal Barik,birbal@iiitnr.com,Delays and Cancellations,Train to goa was delayed.,Pending
8 2023-02-14,20230214006,Abhinay,abhinay@gmail.com,Poor Maintainance,Clean bedsheets were not provided on Amarkatak Express,Pending
9 2023-02-14,20230214008,Arman Singh,arman@gmail.com,Ticketing Issues,"Ticket counter was closed for four hours, this morning.",Done
10 2023-02-14,20230214009,Arman Singh,arman@gmail.com,Safety Issues,Broken shards of glass in train compartment.,Pending
11 2023-02-14,20230214010,Arman Singh,arman@gmail.com,Poor Maintainance,Collection of dust and webs underneath train seat.,Pending
12 2023-02-14,20230214011,Bhavik Sachdev,b.sachdev1904@gmail.com,Test,Testing complaint registration system.,Done
13 2023-02-16,20230216000,Arman Singh,arman@gmail.com,Other,Not enough trains connecting DRZ - R,Done
14 2023-02-16,20230216001,Arman Singh,arman@gmail.com,Overcrowding,Train between DRZ - R is always overcrowded,Pending
15 2023-02-16,20230216002,Arman Singh,arman@gmail.com,Poor Maintainance,Train Compartments are very old and not clean.,Pending
16 2023-02-16,20230216003,Amritanshu ,A@g.com,Overcrowding,Train to Allahabad is always overcrowded,Pending
17 2023-02-16,20230216004,Amritanshu,A@g.com,Ticketing Issues,No one at Ticketing Counter,Pending
18 2023-02-16,20230216005,Amritanshu,A@g.com,Safety Issues,No windows in sleeper cabin,Pending
19 2023-02-16,20230216006,Birbal Barik,birbal@iiitnr.com,Ticketing Issues,Could not get a ticket to a train to Raipur,Pending
20 2023-02-16,20230216007,Birbal Barik,birbal@iiitnr.com,Overcrowding,Train to Bhilai is always overcrowded.,Done
21 2023-02-16,20230216008,Sanjay Sachdev,sanjay@gmail.com,Delays and Cancellations,Train to Jabalpur was delayed by 5 Hours.,Pending
22
```

Types.txt

```
1 Other
2 Delays and Cancellations
3 Overcrowding
4 Poor Maintainance
5 Ticketing Issues
6 Safety Issues
7 Test You, 2 days ago
8 | Staff Issues
9
```

Sample Outputs

User Functionality

New User

```
PS C:\Code\Python\PythonProject> python project.py
Welcome to Railway's Online Complaint Registration System!
Press Respective Key to Perform Operations
1: New User
2: User Login
3: Admin Login
4: New Admin
5: Exit
Input: 1
To create a new account please provide us with the following details.
Name: Sanjay Sachdev
Email: sanjay@gmail.com
Please create a new password.
A password must contain atleast an lowercase, uppercase, number and a special character
Password: Sanjay@123
A new account has been created. What would you like to do next?
1: Login
2: Exit
Input: 1
Email: sanjay@gmail.com
Password: Sanjay@123
Login Successful!
What would you like to do?
1: Register a New Complaint
2: Check Status of Complaint
3: Change Password
4: Delete Account
5: Logout
Input: █
```

Register a Complaint

```
What would you like to do?
1: Register a New Complaint
2: Check Status of Complaint
3: Change Password
4: Delete Account
5: Logout
Input: 1
Please Provide us with the following details to register a complaint
Name: Sanjay Sachdev
Please Choose one of the following categories of complaints
1 : Other
2 : Delays and Cancellations
3 : Overcrowding
4 : Poor Maintainance
5 : Ticketing Issues
6 : Safety Issues
7 : Test
Input: 2
Please provide a description of your complaint
Complaint: Train to Jabalpur was delayed by 5 Hours.

Your complaint has been registered successfully
Your complaintID is: 20230216008
Thank You for using our service
```

Check Status of Complaints

```
What would you like to do?
1: Register a New Complaint
2: Check Status of Complaint
3: Change Password
4: Delete Account
5: Logout
Input: 2
ComplaintID : 20230214008 , Status : Pending
ComplaintID : 20230214009 , Status : Pending
ComplaintID : 20230214010 , Status : Pending
ComplaintID : 20230216000 , Status : Done
ComplaintID : 20230216001 , Status : Pending
ComplaintID : 20230216002 , Status : Pending
```

Change Password

```
ComplaintID : 20230216002 , Status : Pending
What would you like to do?
1: Register a New Complaint
2: Check Status of Complaint
3: Change Password
4: Delete Account
5: Logout
Input: 3
Please Enter a New Password
A password must contain atleast an lowercase, uppercase, number and a special character
Password: Arman@1234
Password Changed Successfully
```

Delete Account

```
Email: sanjay@gmail.com
Password: Sanjay@123
Login Successful!
What would you like to do?
1: Register a New Complaint
2: Check Status of Complaint
3: Change Password
4: Delete Account
5: Logout
Input: 4
Your Account has been Successfully Deleted
```

Admin Functionality

Admin Features

```
Welcome to Railway's Online Complaint Registration System!
Press Respective Key to Perform Operations
1: New User
2: User Login
3: Admin Login
4: New Admin
5: Exit
Input: 3
Email: admin@admin.com
Password: Admin@123
Login Successful!
What would you like to do?
1: Print All Complaints
2: Print Sorted Complaints
3: Filter Complaints Based on Type
4: Delete a Complaint
5: Add New Complaint Type
6: Update Status of Complaint
7: Change Password
8: Delete Account
9: Logout
Input: 1
```

Print All Complaints

```
What would you like to do?
1: Print All Complaints
2: Print Sorted Complaints
3: Filter Complaints Based on Type
4: Delete a Complaint
5: Add New Complaint Type
6: Update Status of Complaint
7: Change Password
8: Delete Account
9: Logout
Input: 1
```

Date	ComplaintID	Name	Email	Complaint Type	Complaint	Status
2023-02-14	20230214000	Bhavik Sachdev	b.sachdev1904@gmail.com	Delays and Cancellations	Train to Jabalpur was delayed.	Done
2023-02-14	20230214001	Bhavik Sachdev	b.sachdev1904@gmail.com	Overcrowding	Train to Bhopal had many passengers with no tickets.	Pending
2023-02-14	20230214002	Lokesh	lokesh@gmail.com	Overcrowding	Test Complaint	Pending
2023-02-14	20230214003	Amritanshu	A@g.com	Poor Maintenance	No clean bedsheets on the train to Jabalpur	Pending
2023-02-14	20230214004	Birbal Barik	birbal@iiitnr.com	Other	Raipur Railway Station platform's were not clean.	Pending
2023-02-14	20230214005	Birbal Barik	birbal@iiitnr.com	Delays and Cancellations	Train to goa was delayed.	Pending
2023-02-14	20230214006	Abhinay	abhinay@gmail.com	Poor Maintenance	Clean bedsheets were not provided on Amarkatak Express	Pending
2023-02-14	20230214007	Abhinay	abhinay@gmail.com	Ticketing Issues	IRCTC's platform has not been functional for last two days.	Pending
2023-02-14	20230214008	Arman Singh	arman@gmail.com	Ticketing Issues	Ticket counter was closed for four hours, this morning.	Pending
2023-02-14	20230214009	Arman Singh	arman@gmail.com	Safety Issues	Broken shards of glass in train compartment.	Pending
2023-02-14	20230214010	Arman Singh	arman@gmail.com	Poor Maintenance	Collection of dust and webs underneath train seat.	Pending
2023-02-14	20230214011	Bhavik Sachdev	b.sachdev1904@gmail.com	Test	Testing complaint registration system.	Done
2023-02-16	20230216000	Arman Singh	arman@gmail.com	Other	Not enough trains connecting DRZ - R	Done
2023-02-16	20230216001	Arman Singh	arman@gmail.com	Overcrowding	Train between DRZ - R is always overcrowded	Pending
2023-02-16	20230216002	Arman Singh	arman@gmail.com	Poor Maintenance	Train Compartments are very old and not clean.	Pending
2023-02-16	20230216003	Amritanshu	A@g.com	Overcrowding	Train to Allahabad is always overcrowded	Pending
2023-02-16	20230216004	Amritanshu	A@g.com	Ticketing Issues	No one at Ticketing Counter	Pending
2023-02-16	20230216005	Amritanshu	A@g.com	Safety Issues	No windows in sleeper cabin	Pending
2023-02-16	20230216006	Birbal Barik	birbal@iiitnr.com	Ticketing Issues	Could not get a ticket to a train to Raipur	Pending
2023-02-16	20230216007	Birbal Barik	birbal@iiitnr.com	Overcrowding	Train to Bhilai is always overcrowded.	Done
2023-02-16	20230216008	Sanjay Sachdev	sanjay@gmail.com	Delays and Cancellations	Train to Jabalpur was delayed by 5 Hours.	Pending

Sorted Complaints (Based on Status)

What would you like to do?
 1: Print All Complaints
 2: Print Sorted Complaints
 3: Filter Complaints Based on Type
 4: Delete a Complaint
 5: Add New Complaint Type
 6: Update Status of Complaint
 7: Change Password
 8: Delete Account
 9: Logout
 Input: 2

Date	ComplaintID	Name	Email	Complaint	Complaint Type	Status
2023-02-14	20230214001	Bhavik Sachdev	b.sachdev1904@gmail.com	Overcrowding	Train to Bhopal had many passengers with no tickets.	Pending
2023-02-14	20230214002	Lokesh	lokesh@gmail.com	Overcrowding	Test Complaint	Pending
2023-02-14	20230214003	Amritanshu	A@g.com	Poor Maintainance	No clean bedsheets on the train to Jabalpur	Pending
2023-02-14	20230214004	Birbal Barik	birbal@iitnr.com	Other	Raipur Railway Station platform's were not clean.	Pending
2023-02-14	20230214005	Birbal Barik	birbal@iitnr.com	Delays and Cancellations	Train to goa was delayed.	Pending
2023-02-14	20230214006	Abhinay	abhinay@gmail.com	Poor Maintainance	Clean bedsheets were not provided on Amarkatak Express	Pending
2023-02-14	20230214007	Abhinay	abhinay@gmail.com	Ticketing Issues	IRCTC's platform has not been functional for last two days.	Pending
2023-02-14	20230214008	Arman Singh	arman@gmail.com	Ticketing Issues	Ticket counter was closed for four hours, this morning.	Pending
2023-02-14	20230214009	Arman Singh	arman@gmail.com	Safety Issues	Broken shards of glass in train compartment.	Pending
2023-02-14	20230214010	Arman Singh	arman@gmail.com	Poor Maintainance	Collection of dust and webs underneath train seat.	Pending
2023-02-16	20230216001	Arman Singh	arman@gmail.com	Overcrowding	Train between DRZ - R is always overcrowded	Pending
2023-02-16	20230216002	Arman Singh	arman@gmail.com	Poor Maintainance	Train Compartments are very old and not clean.	Pending
2023-02-16	20230216003	Amritanshu	A@g.com	Overcrowding	Train to Allahabad is always overcrowded	Pending
2023-02-16	20230216004	Amritanshu	A@g.com	Ticketing Issues	No one at Ticketing Counter	Pending
2023-02-16	20230216005	Amritanshu	A@g.com	Safety Issues	No windows in sleeper cabin	Pending
2023-02-16	20230216006	Birbal Barik	birbal@iitnr.com	Ticketing Issues	Could not get a ticket to a train to Raipur	Pending
2023-02-16	20230216008	Sanjay Sachdev	sanjay@gmail.com	Delays and Cancellations	Train to Jabalpur was delayed by 5 Hours.	Pending
2023-02-14	20230214000	Bhavik Sachdev	b.sachdev1904@gmail.com	Delays and Cancellations	Train to Jabalpur was delayed.	Done
2023-02-14	20230214011	Bhavik Sachdev	b.sachdev1904@gmail.com	Test	Testing complaint registration system.	Done
2023-02-16	20230216000	Arman Singh	arman@gmail.com	Other	Not enough trains connecting DRZ - R	Done
2023-02-16	20230216007	Birbal Barik	birbal@iitnr.com	Overcrowding	Train to Bhilai is always overcrowded.	Done

Filter Complaints Based on Type

What would you like to do?
 1: Print All Complaints
 2: Print Sorted Complaints
 3: Filter Complaints Based on Type
 4: Delete a Complaint
 5: Add New Complaint Type
 6: Update Status of Complaint
 7: Change Password
 8: Delete Account
 9: Logout
 Input: 3
 Please Choose one of the following categories of complaints
 1 : Other
 2 : Delays and Cancellations
 3 : Overcrowding
 4 : Poor Maintainance
 5 : Ticketing Issues
 6 : Safety Issues
 7 : Test
 Input: 5

Date	ComplaintID	Name	Email	Complaint	Complaint Type	Status
2023-02-14	20230214007	Abhinay	abhinay@gmail.com	Ticketing Issues	IRCTC's platform has not been functional for last two days.	Pending
2023-02-14	20230214008	Arman Singh	arman@gmail.com	Ticketing Issues	Ticket counter was closed for four hours, this morning.	Pending
2023-02-16	20230216004	Amritanshu	A@g.com	Ticketing Issues	No one at Ticketing Counter	Pending
2023-02-16	20230216006	Birbal Barik	birbal@iitnr.com	Ticketing Issues	Could not get a ticket to a train to Raipur	Pending

New Complaint Type

<p>What would you like to do? 1: Print All Complaints 2: Print Sorted Complaints 3: Filter Complaints Based on Type 4: Delete a Complaint 5: Add New Complaint Type 6: Update Status of Complaint 7: Change Password 8: Delete Account 9: Logout Input: 5 Enter New Complaint Type: Staff Issues New Complaint Type Added</p>	<p>Please Choose one of the following categories of complaints 1 : Other 2 : Delays and Cancellations 3 : Overcrowding 4 : Poor Maintainance 5 : Ticketing Issues 6 : Safety Issues 7 : Test 8 : Staff Issues</p>
---	---

Change Status of a Complaint

```
What would you like to do?
1: Print All Complaints
2: Print Sorted Complaints
3: Filter Complaints Based on Type
4: Delete a Complaint
5: Add New Complaint Type
6: Update Status of Complaint
7: Change Password
8: Delete Account
9: Logout
Input: 6
Enter Complaint ID: 20230214008
What would you like the new status to be?
1: Done
2: Pending
Input: 1
Status Changed Successfully!
```

Invalid Inputs

Number Greater than List Index

```
Welcome to Railway's Online Complaint Registration System!
Press Respective Key to Perform Operations
1: New User
2: User Login
3: Admin Login
4: New Admin
5: Exit
Input: 6
Number greater than 5
Input: █
```

No Email Found

```
Welcome to Railway's Online Complaint Registration System!
Press Respective Key to Perform Operations
1: New User
2: User Login
3: Admin Login
4: New Admin
5: Exit
Input: 2
Email: b123
No such email ID was found.
Please try again or press 1 to exit.
Email: 1
```

Incorrect Password

```
Welcome to Railway's Online Complaint Registration System!
Press Respective Key to Perform Operations
1: New User
2: User Login
3: Admin Login
4: New Admin
5: Exit
Input: 2
Email: b.sachdev1904@gmail.com
Password: 123
Entered password is incorrect.
Please try again or Press 1 to exit.
Password: Bh@vik123
Entered password is incorrect.
Please try again or Press 1 to exit.
Password: Bh@vik1234
Login Successful!
```