APP WEEK-2 LAB

Q1.
Write a python code for creating a password for E-Aadhar card.
The details used are the first 4 letters of your name, date and month of your birth. The tas k is to generate a password with the lambda function and display it

Code:

```
from datetime import datetime
name=input("Enter your name: ")
dob=input("Enter your date of birth in the format (DD-MM-YYYY): ")
first_four_letters=name[:4].upper()
date_of_birth=datetime.strptime(dob, "%d-%m-%Y")
month_of_birth=date_of_birth.strftime("%m")
date_of_birth=date_of_birth.strftime("%d")
password=(lambda x, y, z: x + y + z)(first_four_letters, date_of_birth, month_of_birth)
print("Your E-Aadhar password is:",password)
```

SnapShot:

```
'''Write a python code for creating a password for E-Aadhar card.
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month_of_birth=date_of_birth.strftime("%m")
date_of_birth=date_of_birth.strftime("%d")
password=(lambda x, y, z: x + y + z)(first_four_letters, date_of_birth, month_of_birth)
print("Your E-Aadhar password is:",password)
```

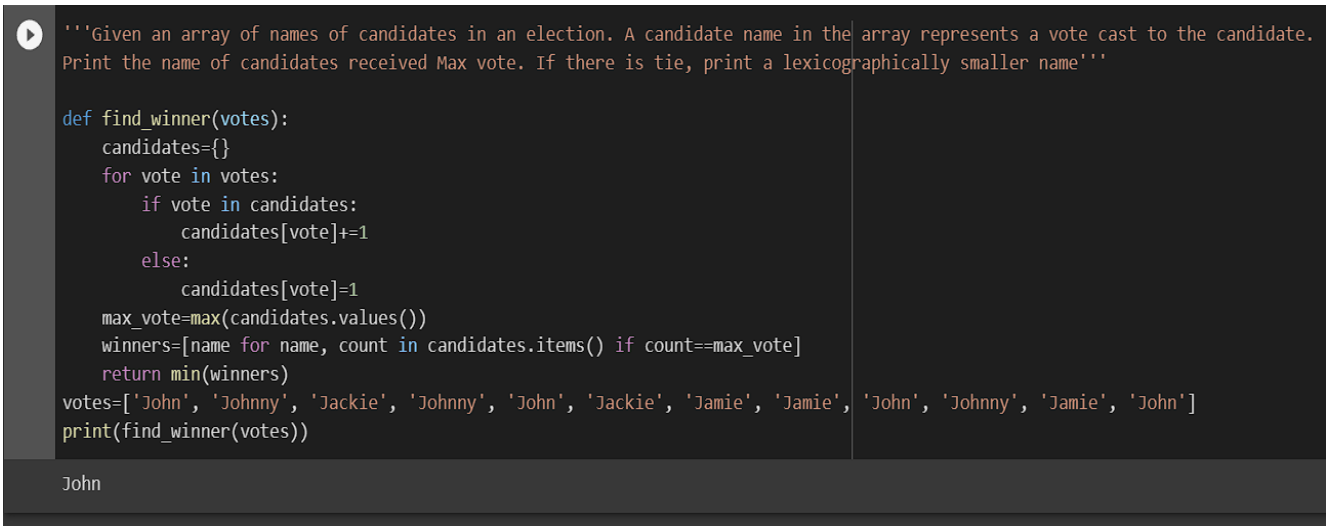
```
Enter your name: Shaurya
Enter your date of birth in the format (DD-MM-YYYY): 02-10-2003
Your E-Aadhar password is: SHAU0210
```

Q2. Given an array of names of candidates in an election. A candidate name in the array represents a vote cast to the candidate. Print the name of candidates received Max vote. If there is tie, print a lexicographically smaller name

Code:

```
def find_winner(votes):
    candidates={}
    for vote in votes:
        if vote in candidates:
            candidates[vote]+=1
        else:
            candidates[vote]=1
    max_vote=max(candidates.values())
    winners=[name for name, count in candidates.items() if count==max_vote]
    return min(winners)
votes=['John', 'Johnny', 'Jackie', 'Johnny', 'John', 'Jackie', 'Jamie', 'Jamie', 'John', 'Johnny', 'Jamie'
, 'John']
print(find_winner(votes))
```

SnapShot:

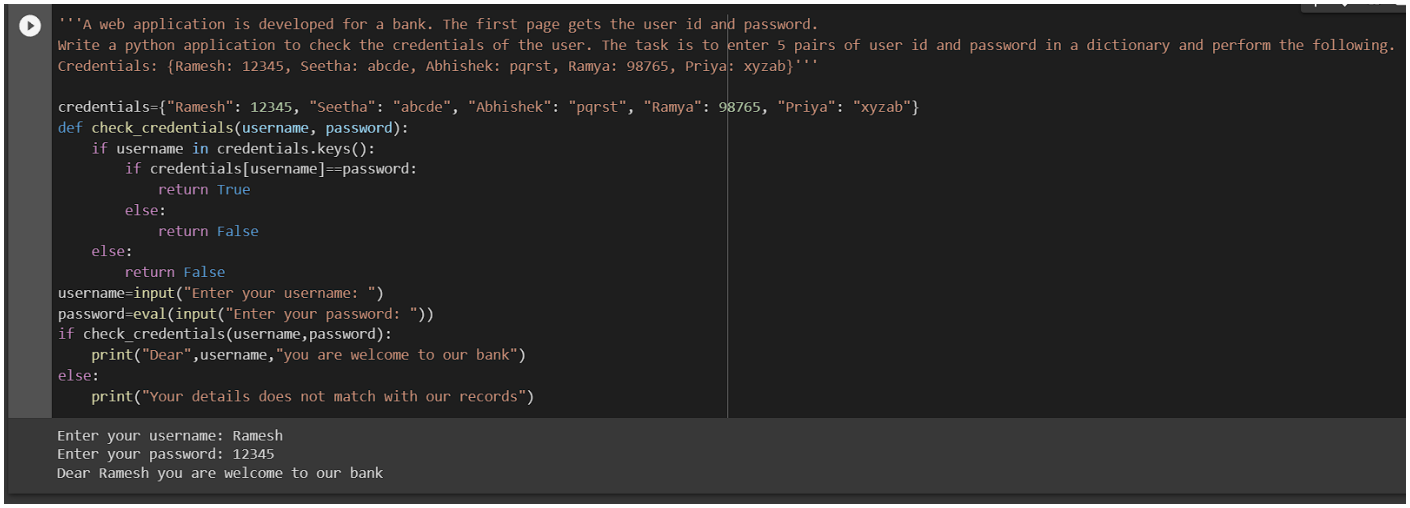


Q3.
A web application is developed for a bank. The first page gets the user id and password. Write a python application to check the credentials of the user. The task is to enter 5 pairs of user id and password in a dictionary and perform the following.
Credentials: {Ramesh: 12345, Seetha: abcde, Abhishek: pqrst, Ramya: 98765, Priya: xyzab}

Code:

```
credentials={"Ramesh": 12345, "Seetha": "abcde", "Abhishek": "pqrst", "Ramya": 98765, "Priy
a": "xyzab"}
def check_credentials(username, password):
    if username in credentials.keys():
        if credentials[username]==password:
            return True
        else:
            return False
    else:
        return False
username=input("Enter your username: ")
password=eval(input("Enter your password: "))
if check_credentials(username,password):
    print("Dear",username,"you are welcome to our bank")
else:
    print("Your details does not match with our records")
```

SnapShot:



Q4.
Develop an application called Quiz. Store 7 pairs of questions and answers in a dictionary. The task is to ask 5 questions. The user enters the answers. For every correct answer 1 mark is awarded. Finally, display the total score of the user.

Code:

```
quiz={
   "What is the capital of India?": "New Delhi",
   "What is the currency of Japan?": "Japanese Yen",
   "What is the tallest mammal?": "Giraffe",
   "What is the largest planet in the solar system?": "Jupiter",
   "Who invented the telephone?": "Alexander Graham Bell",
   "What is the most populous country in the world?": "China",
   "Who wrote the Harry Potter series?": "J.K. Rowling"}
score=0
questions=list(quiz.keys())[:5]
for question in questions:
   answer=input(question + ": ")
   if answer==quiz[question]:
      score +=1
      print("Correct!")
   else:
      print("Incorrect.")
print("Your score:", score, "out of 5.")
```

SnapShot:

Q4.

Captchas are tools you can use to differentiate between real users and automated users, su ch as bots. Create a tuple of 5 captcha in python. Your task is to randomly display a captc ha from the tuple. Then enter the captcha. If the same captcha was entered, then display " You are not a robot", else display "You are a robot

Code:

```
import random
captchas=("Rh7yA","ju97g","gP0h3","mn0Gl","Ril98")
def display_captcha():
    captcha=random.choice(captchas)
    print("Enter the captcha: ",captcha)
    user_input=input()
    if user_input==captcha:
        print("You are not a robot")
    else:
        print("You are a robot")
display_captcha()
```

SnapShot:

```
'''Captchas are tools you can use to differentiate between real users and automated users, such as bots.
Create a tuple of 5 captcha in python. Your task is to randomly display a captcha from the tuple. Then enter the captcha.
If the same captcha was entered, then display "You are not a robot", else display "You are a robot'''

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captchas=("Rh7yA","ju97g","gP0h3","mn0Gl","Ril98")
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    if user_input==captcha:
        print("You are not a robot")
    else:
        print("You are a robot")
display_captcha()
```

```
Enter the captcha:  Rh7yA
Rh7yA
You are not a robot
```