The project task is as follows:

Stage 1 : User Validity

- Ask user to enter Full Name or User ID
- If Full Name / User ID not there then tell invalid User
- If it exists, then ask user to enter Bank Account Number
- If A/c number doesn't exist, then tell invalid user
- If both are correct, then proceed to Stage 2
- Give user three tries. If invalid input is given in all three tries then change account status from Active to Blocked and print Account Blocked and print quit program in Stage 1

Stage 2: OTP Generation and Validity

- Through code generate a 4 digit random OTP number
- Send this OTP to that User via email
- Then ask user to enter OTP from mail. Match this OTP with one generated in code.
- If OTP matches then go to Stage 3. Else say Invalid OTP.
- Give user three tries. If wrong OTP in all three tries then change account status from Active to Blocked and print Account Blocked and print quit program in Stage 2

Stage 3 : Choice of Transaction

- Ask user which type of transaction he wishes to do. 'C' for credit money and 'D' for debit money
- If User enters any other input here then handle error and print Invalid Input. Again give user three tries and if all wrong then change account status from Active to Blocked and print Account Blocked and print quit program in Stage 3
- If correct input then print current balance
- Then ask user for amount to be credited or debited
- Add or subtract amount entered by user to the current account balance and print the final account balance and write the same to account balance cells in excel workbook.
- Print "Successful Transaction of Rs.__ completed"

Output of code:

```
Enter your User ID:67yte
User doesn't exist
Enter your User ID:19091022002

Enter your Account No.:456234
Invalid Account no.

Enter your Account No.:2019091022IND1453
Verifying.....Please Wait!

Enter your password:ismail55gmail
Please Wait....
OTP has been sent to your mail successfully!

Enter the OTP:4399
Successfully Verified OTP

Enter the transaction you want to do:
1.Credit(C)
2.Debit(D)
h
Type Error
Invalid input! Enter character from the above 2 options

Enter the transaction you want to do:
1.Credit(C)
2.Debit(D)
C

Please Enter your name:Karan Shah
Invalid name, Enter the name corresponding to your ID

Please Enter your name:Manan Jain
Current Balance= 1000
Enter the amount to be credited:500
Total Amount= 1500

Successful Transaction of Rs. 1500 completed
```

This is the prototype of Backend of Banking System using Python…

Here, the list of users, their user ids and account nos. are stored in a list.

It will ask for the user id, if given wrong attempt 3 times then the account will be blocked and will come out of the code.

If successfully entered, it will ask for the account no. , wrong attempt 3 times will lead to blocking of the account. If successfully entered, the system will verify and proceed for entering the mail id and password and OTP will be sent successfully on the mail.

On entering the OTP, it will verify and we will be allowed to do the transactions now.

3 options will be there, Credit, Debit, Check Balance. System will ask us to enter our name and will ask for the three options. User has to enter one of the options, for eg. Debit, then it will show us the current balance and will ask for the amount to be debited, on entering the amount it will do the transaction accordingly and will show the final balance.

Simultaneously these processing will be done in the excel sheet and that sheet will be saved. This is done using "openpyxl" library in ppython.

Likewise the other options work.