Team: The Warriors

Documentation (in markdown format or PDF), including

• An explanation of the purpose of each file in your repository

We used a JSON file to store user data about our users, which includes usernames, passwords, account details, balances, and transaction history

• Clear instructions on how to run your program from the command line

Open the terminal, and run the following: python3 INST326Project.py

• Clear instructions on how to use your program and/or interpret the output of the program, as applicable

You use the program to fit your needs in our state-of-the-art banking system. When you start the program from the terminal, you will be presented with the starting screen. This will offer the choice of Creating an Account, Logging In, or Exiting. If you hit 1 for Account Creation, you will be directed to the next prompt which asks for user information. This is where you will create your account and set your username and password. The second option is to log in. Once you have an account, you can enter in 2 for option 2, which will prompt you to the login screen. After you log in, the bread and butter presents itself. You access your account and hit the main menu. Here, you have the options to Withdraw, Deposit, Check balance, or Exit which is logging out. These options let you run your account of course, as any legitimate bank would. Hitting the Deposit button lets you enter the amount of funds you want to add to your account. Withdraw option lets you enter an amount to take out. Check Balance lets you view your current balance as well as a transaction history, which includes a bar chart visualizing your transactions over time. After that, you can exit the account by hitting the Exit option. You will be redirected back to the starting screen, where you have the option of creating another account, logging in, or hitting 4 (Exit) to exit the program as a whole.

• Attribution: to evaluate whether each member has made a substantial, original contribution to the project, please provide a table like this:

| Method/function | Primary author | Techniques demonstrated |
|-----------------------------------|----------------------------|------------------------------------|
| Def deposit | Saleh Reem Osama | F-strings containing expressions |
| Def withdraw | | |
| Def validate_password | | Regular expression |
| Def init for UserAccount Class | HooperTyrese | Optional Parameters |
| Def load_user_data | | JSON load |
| Def authenticate_user | Hossain Abrar | With statements |
| Def hash_password | | Conditional expression |
| def check_balance | Ndaloma Mohamed Tambiah | lambda expressions, seaborn pyplot |
| def run_transaction_module | | |
| Def add_transaction | Paul Rophy Guerschon | Pandas |
| defstr | | Magic Method |