

# Assignment 2

## General Assignment Submission Guidelines

For every non-programming question, please submit a PDF of the answers.

For every programming question please submit *ONLY* the .java file.

For every question that is a combination of both, you may submit the answers in the form of comments inside of the .java file OR a separate PDF, whichever you prefer.

For .java files, please name the class/file accordingly, *DO NOT* make up random names. If explicitly told to name a file/class a name, name the file that name!

Name variables accordingly and not unintelligible.

## Specific Assignment Submission Guidelines

For this assignment you are *NOT* to use an IDE, you *must* use a terminal to compile and execute your code.

For programming questions please showcase the steps either separately or all together.

- Compiling the program
- Executing the program

These should be done with the commands used to compile & execute java within the terminal.

You should be using iterative/conditional statements to answer all of the questions.

DO NOT use predefined methods to solve the logic of the question. Predefined methods are allowed when assisting in non-essential logic of the question.

## Questions

1. Explain what conditional statements are and what they are used for. Explain what iterative statements are and why they are used. (1pt)
2. Write a program that takes two integers, and returns the result of the first integer raised to the power of the second integer. (2pts)

3. Write a program that checks if a String is a palindrome. Research any supplemental methods to aid in this, but the logic to determine whether it is a palindrome must be implemented by your self. (2pts)
  
4. Implement a BankTeller program. Your program should allow a user to navigate through a few options which correspond to the users Bank account. (5pts)
  - a. Have the user's initial bank account equal \$1000.
  - b. The program must display the following options and implement the corresponding logic.
    - i. Withdraw
    - ii. Deposit
    - iii. Summary
    - iv. Exit
  - c. Have the user Withdraw \$300
  - d. Have the user Deposit \$150
  - e. Have the user request a Summary of their bank account
  - f. Have the user Exit the program