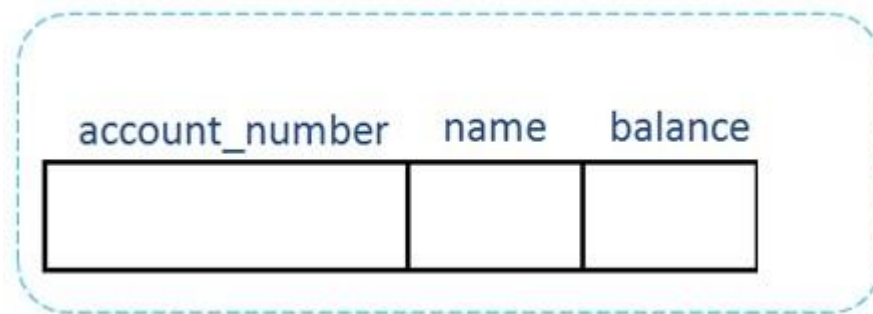# Homework: Queue

In this assignment, you are going to work on data structures **AccountStack** and **AccountQueue** to store data objects called **AccountNode**. **AccountNode** is a data structure used to store account information and has three fields: account_number (int), name (String), and balance (double).

I have created the skeleton of the program. It includes five classes.

- **AccountNode.java**, which contains the definition of a node that will be used in both stack and queue data structures.
- **AccountStack.java**, which is a stack data structure that can be used to store AccountNode instances.
- **AccountQueue.java**, which is a queue data structure that can be used to store AccountNode instances.
- **queueTest.java**, which is used to test data structures AccountStack and AccountQueue.

AccountNode.java, AccountStack, and **queueTest.java** have been written for you. You do not need to make any changes.

Your task is to complete the missing code of four functions in **AccountQueue.java**. Detailed instructions can be found inside the program.

About *reverseQueue()* function in AccountQueue.java

- In some applications, it might be useful to reverse the sequence of elements in a queue.
- In function *reverseQueue()*, you are required to use a stack to reverse the queue. The stack class is defined in **AccountStack.java**. You should first remove all the elements from the queue and add them to a stack and then remove all the elements from the stack and add them to the queue. The orders of the elements in the queue are then reversed.

Submission: (1) modified **AccountQueue.java** and (2) **screenshot** of the output of running the program.