

OBJECT-ORIENTED PROGRAMMING**2nd Homework Assignment****Due on: April 10, 2006**

You will design a simple ATM machine for an existing Banking System. The existing Banking System has three classes: Bank, Customer and Account. Each customer has at most one account and now one credit card. Credit cards are being delivered to the customers using postal services including four-digit pin codes. Each credit card is associated to exactly one bank account. A credit card holds credit card number and customer id. No one can read the credit card number but the ATM machine. ATM machine provides only two types of services: withdraw money and checking the balance. ATM machine has four types of banknotes: 10 YTL, 20YTL, 50YTL and 100YTL. So a customer can only withdraw multiples of 10YTL amount of money. ATM machine can report its status only to Bank (e.g. how many banknotes available for each type). A customer inserts his card and enters 4-digit pin code to use any service. ATM machine validates account id, credit card number and pin code from the Bank. If the Bank invalidates the card, the ATM machine holds it. If the user enters wrong pin code three times, the machine holds the card. If the user withdraws money successfully, the card is given back to the user and ATM machine does not respond to any messages until a user inserts his card. The customer cannot withdraw more than 500YTL in one session. ATM may refuse the withdraw amount if the machine or the customer's balance cannot cover it.

Preparation:

- Download the file <http://www.cs.itu.edu.tr/~kurt/Courses/blg332e/hw2.zip> to your local disk and uncompress it.
- Study the existing classes

Testing:

- You can use and edit BankApp.cpp to test the Banking System

How to submit:

- Archive hw2 directory into a zip file named as ***your_student_id.zip***.
- Use the following link to submit your homework:
http://www.ce.itu.edu.tr/Members/kurt/BLG332E/assignment_submit_form

IMPORTANT

- Academic dishonesty including but not limited to cheating, plagiarism, collaboration is unacceptable and subject to disciplinary actions. Any student found guilty will have grade F. Assignments are due in class on the due date. Late assignments will generally not be accepted. Any exception must be approved. Approved late assignments are subject to a grade penalty.