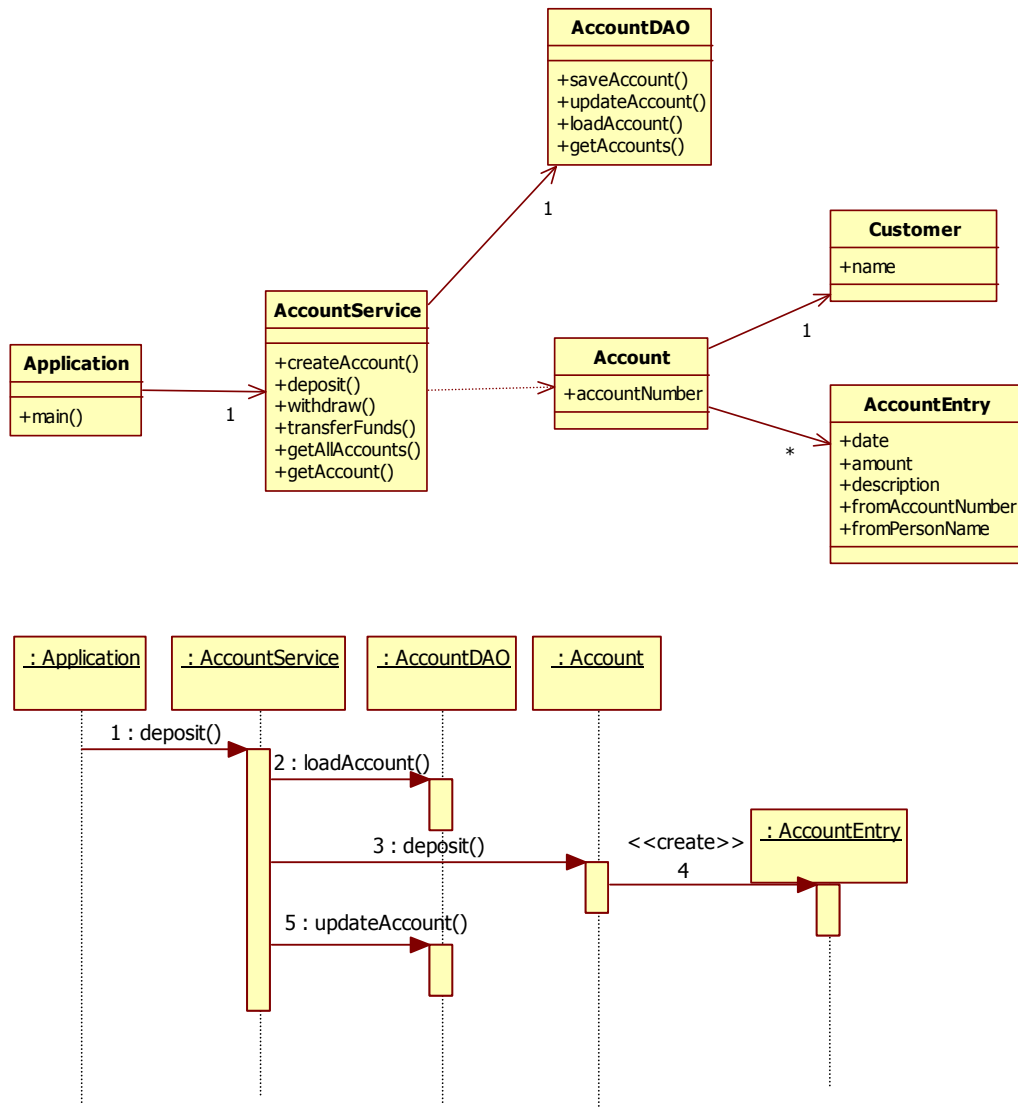


Strategy pattern Lab

Given is the following bank application:



Add functionality such that this bank supports Savings and Checkings accounts. For all accounts we want to add interest, and the interest is calculated with the algorithms given below. Use the strategy pattern.

Interest for a **savings** account:

If balance < 1000 then you get 1% interest

If balance > 1000 and balance < 5000 then you get 2% interest

If balance > 5000 then you get 4% interest

Interest for a **checkings** account:

If balance < 1000 then you get 1,5% interest

If balance > 1000 then you get 2,5% interest

- a. Draw the modified class diagram with the strategy pattern applied.
- b. Draw a sequence diagram that shows how your new design works. On the sequence diagram you should show how the strategy pattern works. The AccountService should have a method addInterest(), and then the interest should be calculated and added to all accounts.
- c. Implement the addInterest() functionality using the strategy pattern in the given code.