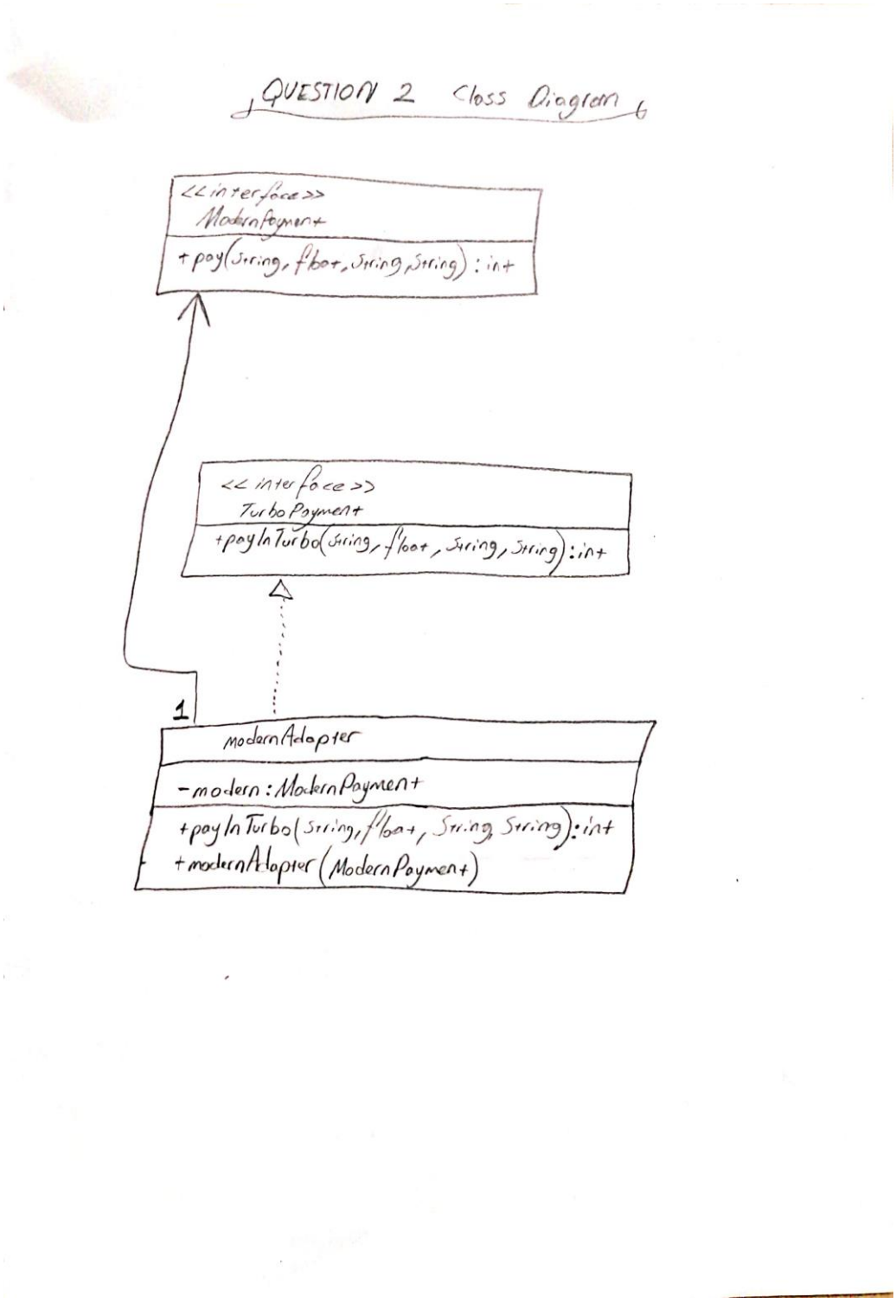
OOAD Midterm Report

Question 2:

I wrapped TurboPayment interface by using “Adapter” design pattern. As you can see in below class diagram I only created a class to actually do the required job.



Question 3:

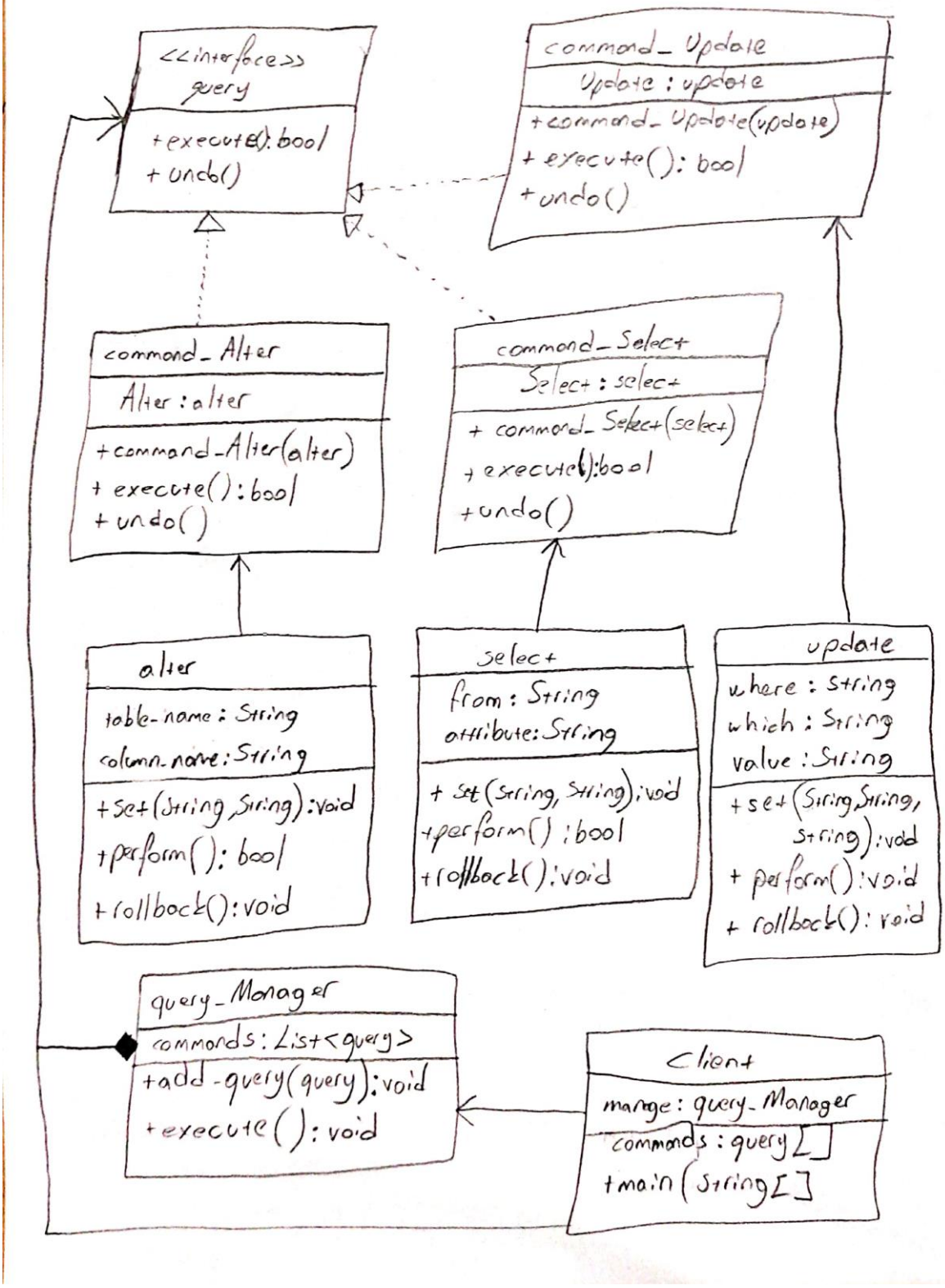
a) I prefered “Command” design pattern for this software. First we generalize alter,update,select queries under “execute” and “undo” methods which is a nice design choice add new type of queries, also easy to handle. You only need to call the execute method of command object and check if it succeed or not and call undo if necessary. Second this design pattern easliy supports undo operation which we need to implement a transaction mechanism. Transaction also need to keep track of executed commands which this design pattern do. Actually this question is a very good example for command design pattern, because I benefitted all of its pros.

b) select command does not need an undo operation, because it does not as any side effects i.e. it does not change any data.

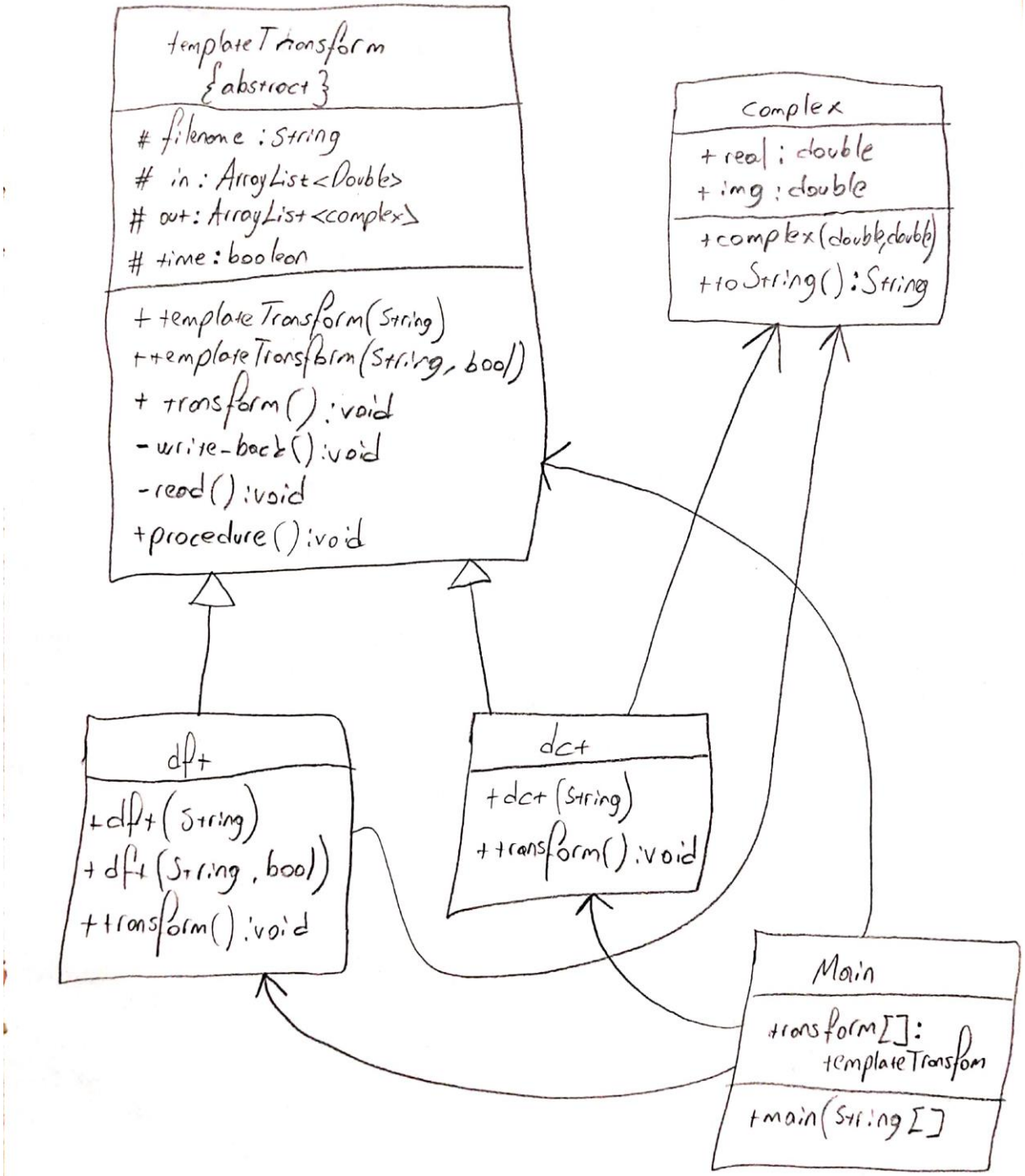
To be able to rollback alter command you should drop the columns you added to a table by alter command.

In order to rollback update command you have to save the data before updating. And if anything cause rollback, you just need to update back but with old value this time.

QUESTION 3 Class Diagram



Question 4 Class Diagram



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