QuizGame Report

Object-oriented programming also known as OOP is a philosophy and style to how to write code. There are many languages out there that uses it, one of them is Java that we have learned during this semester. One of the core ideas behind it that everything you make inside of the code is handled like an Object. What does Object bring on the table? It gives four things that goes as follows: Abstraction, Encapsulation, Inheritance and Polymorphism.

**Abstraction** means you make huge underlaying complex code easy to use by simple words.

**Encapsulation** is the practice of keeping fields inside a class private to hinder manipulation from the outside.

**Inheritance** is that a class can inherent some features from another class.

**Polymorphism** is that some words can be used differently in other contexts. A good example is to overload a syntax to give a new property.

JDBC is short for Java Data Base Connector. This is in generally term called a API that makes my local driven program capable of sending and receiving data from a database source like in this task MySQL.

During this task I mixed many of these concepts and technologies to make my program run. We can start with my own written class in the folder classQuiz. Using a parent class with some common fields so we don’t repeat code and making a checklist of methods to include for the children’s classes. If you look closer, I made my field private to increase the encapsulation. By this sets of class I have done Abstraction, Encapsulation, Inheritance and Polymorphism. If you look more around the code, you will all the fields and majority of methods are private to prevent errors by user during coding and hindrance of manipulation data outside wanted areas.

How I did JDBC is very unsafe in one way and in another way very good, but not optimal. I made a method that makes a connection class to the database, but the fault is that the username and password is hardcoded! This is very unsafe and should never be done but is done for simplicity of the exam and the setup explained is that user is a class and not login from the tasks.   
The thing I believe I did well is to include manual commit and rollback when executing a query. This brings safety if something should go wrong by faulty input or break in connection making my program to rollback. After each commit I close the connection and make a new one. In a perfect world I should have implemented a connection pool between my computer and the database and receive one every time when I need one for performance and traffic to the server. But this is outside my expertise as for now.