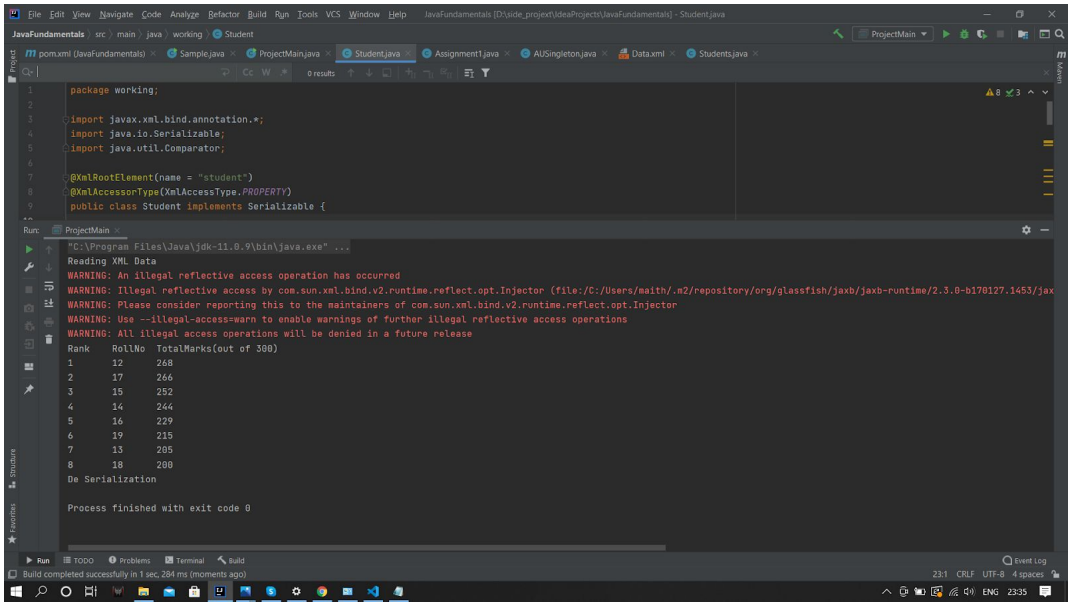
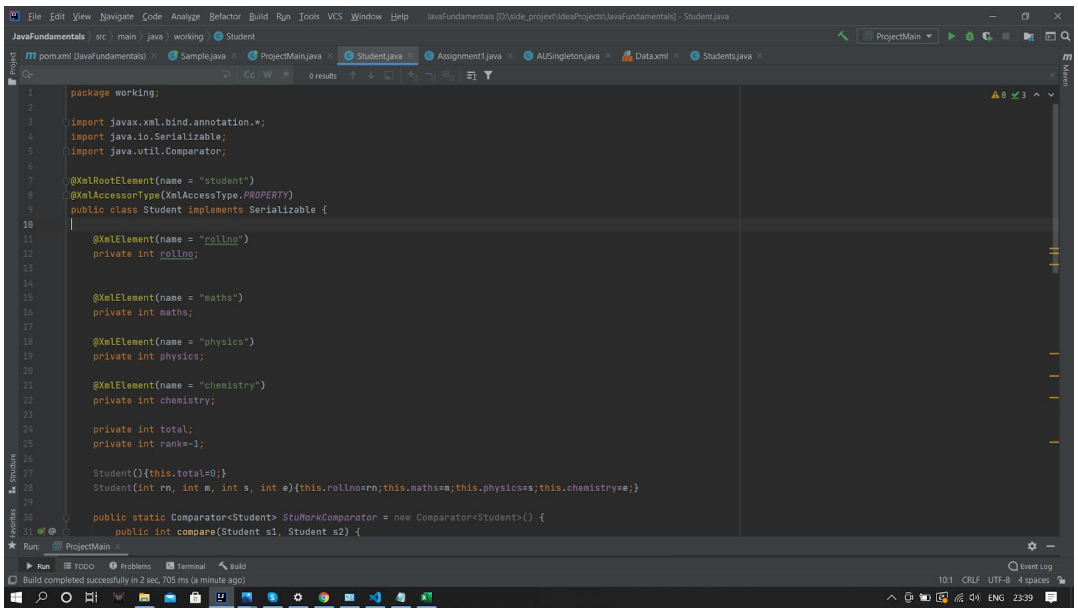
JAVA FUNDAMENTALS ASSIGNMENT

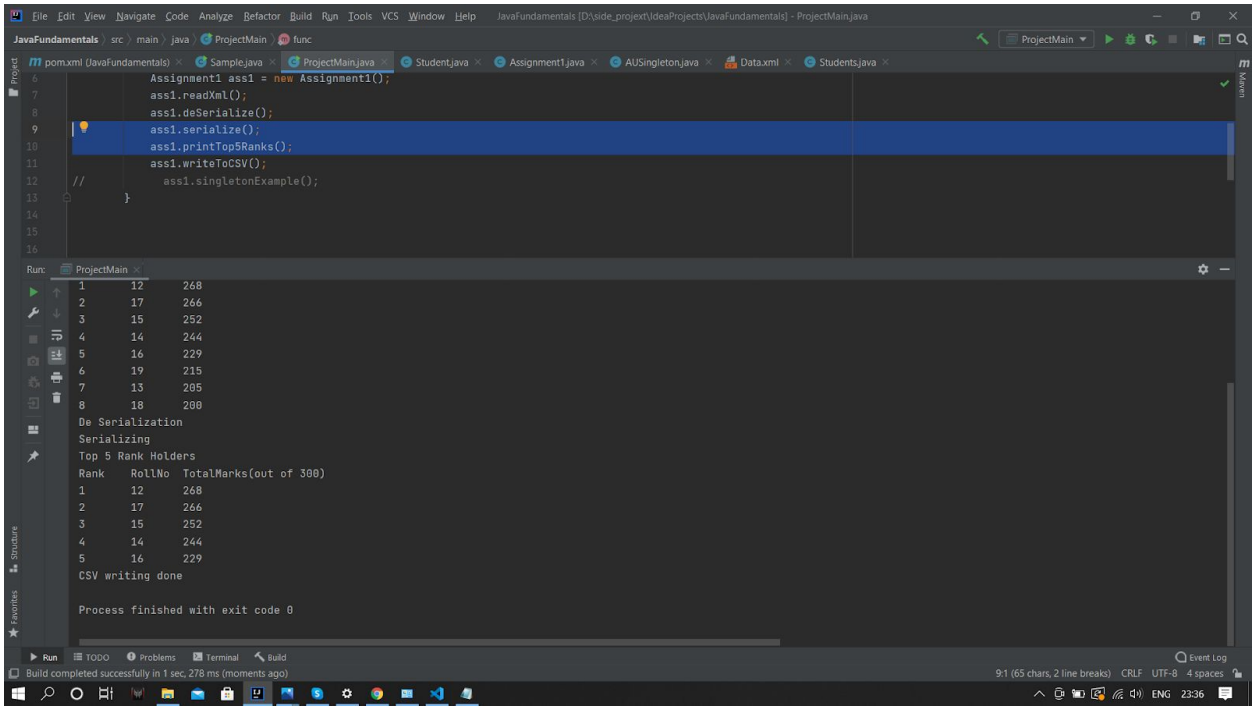
Maithreyan K

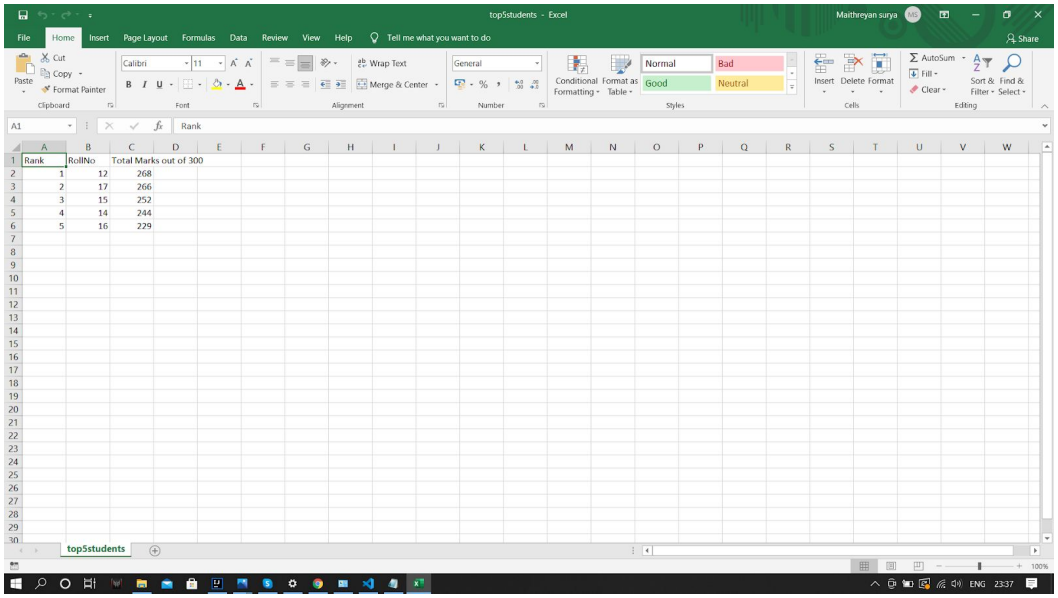
1)Read an XML file “”student.xml” containing list of student data in the following format, deserialize them into java objects, then serialize the unique <rollnumber, total marks(Phy+chem+math)> to a text file “student.txt” with appropriate exception handling.



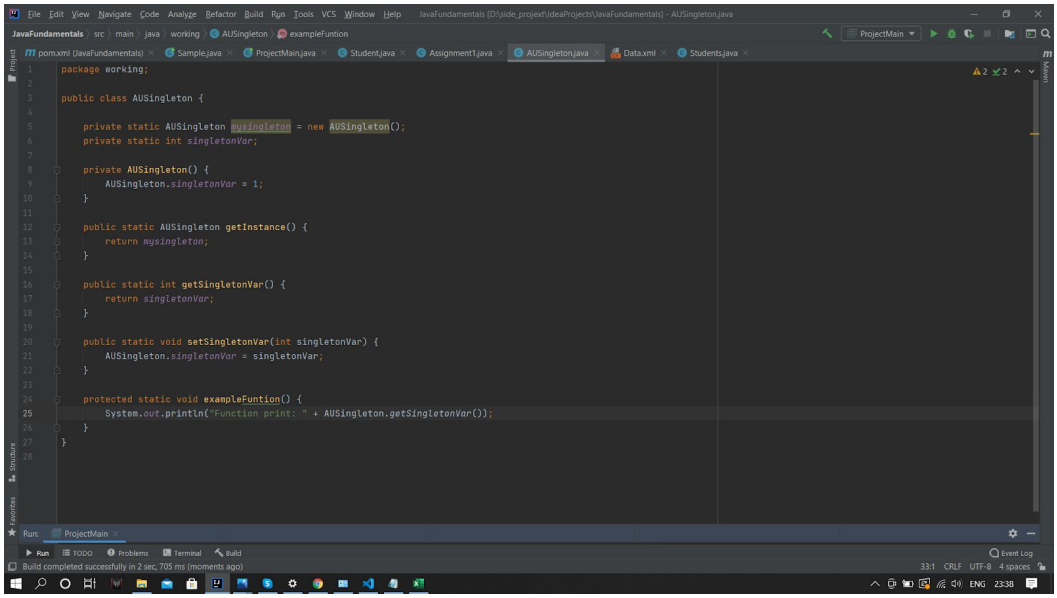


2. Secondly, deserialize the previously stored student.txt file with roll num and total marks.
Then, serialize the top 5 students' roll numbers and total marks into excel or csv file in the following format.

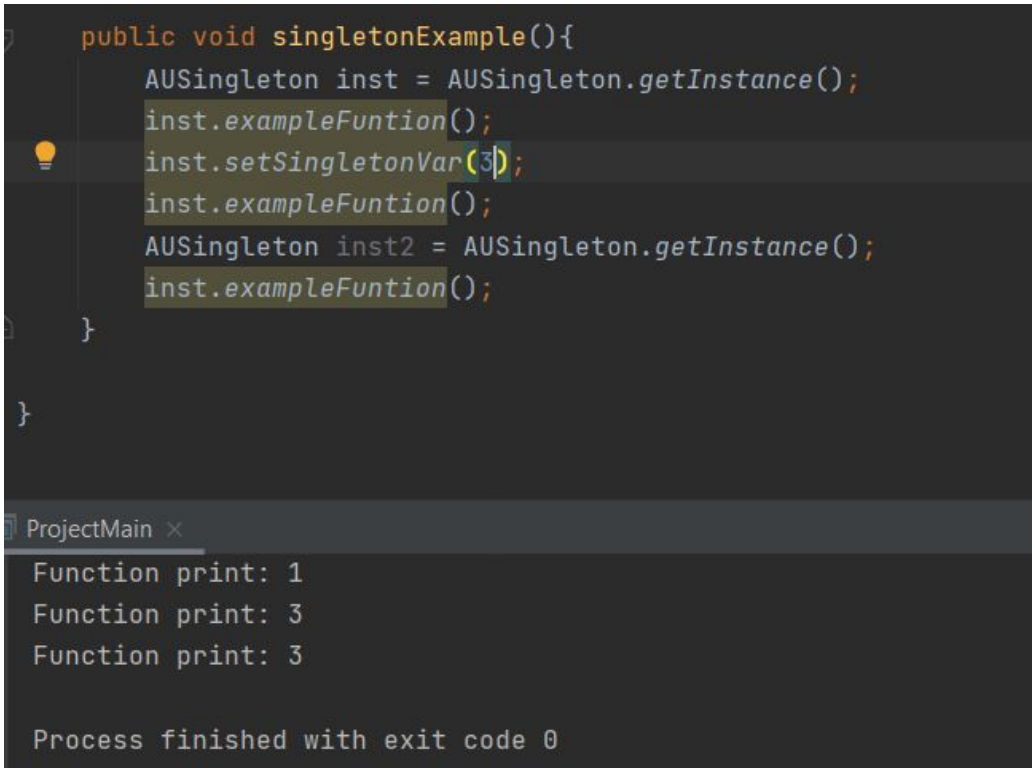




3. Write the implementation for singleton class.



```java
package working;

public class AUSingLeton {

    private static AUSingleton mysingleton = new AUSingleton();
    private static int singletonVar;

    private AUSingleton() {
        AUSingleton.singletonVar = 1;
    }

    public static AUSingleton getInstance() {
        return mysingleton;
    }

    public static int getSingletonVar() {
        return singletonVar;
    }

    public static void setSingletonVar(int singletonVar) {
        AUSingleton.singletonVar = singletonVar;
    }

    protected static void exampleFuntion() {
        System.out.println("Function print: " + AUSingleton.getSingletonVar());
    }
}
```



```java
    public void singletonExample(){
        AUSingleton inst = AUSingleton.getInstance();
        inst.exampleFuntion();
        inst.setSingletonVar(3);
        inst.exampleFuntion();
        AUSingleton inst2 = AUSingleton.getInstance();
        inst.exampleFuntion();
    }

}
```

```
ProjectMain
Function print: 1
Function print: 3
Function print: 3

Process finished with exit code 0
```