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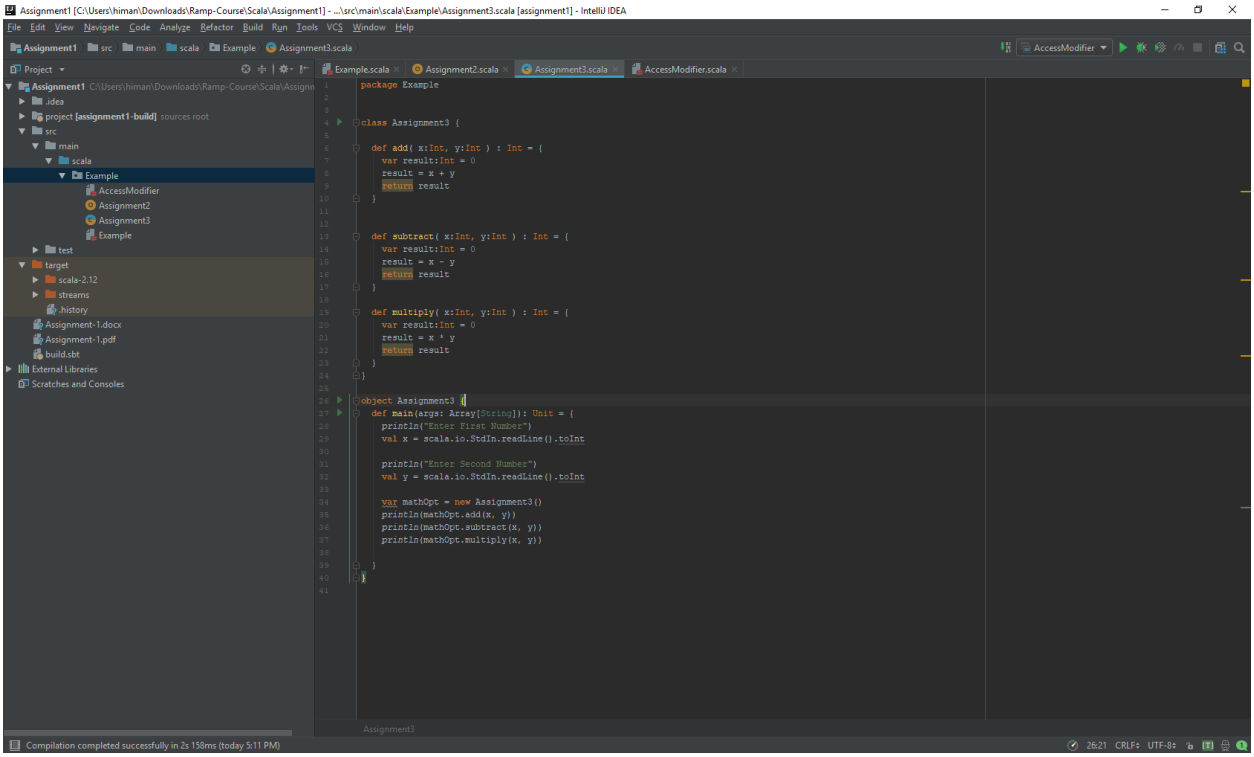
Assignment 3

Scala

Q 1) Write a Scala class which has 3 functions add, subtract and multiply and a main method which executes these three functions.



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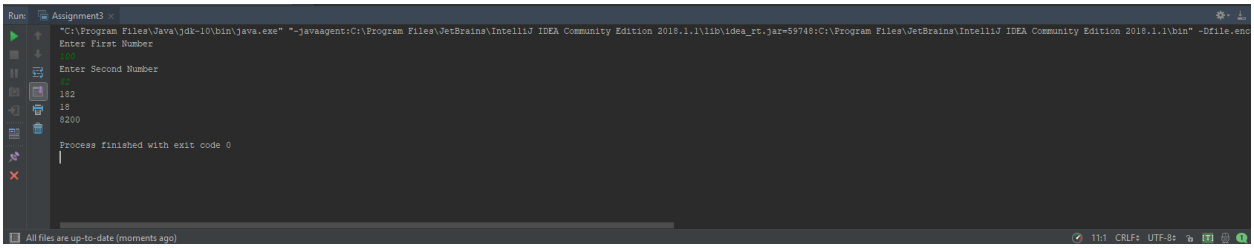
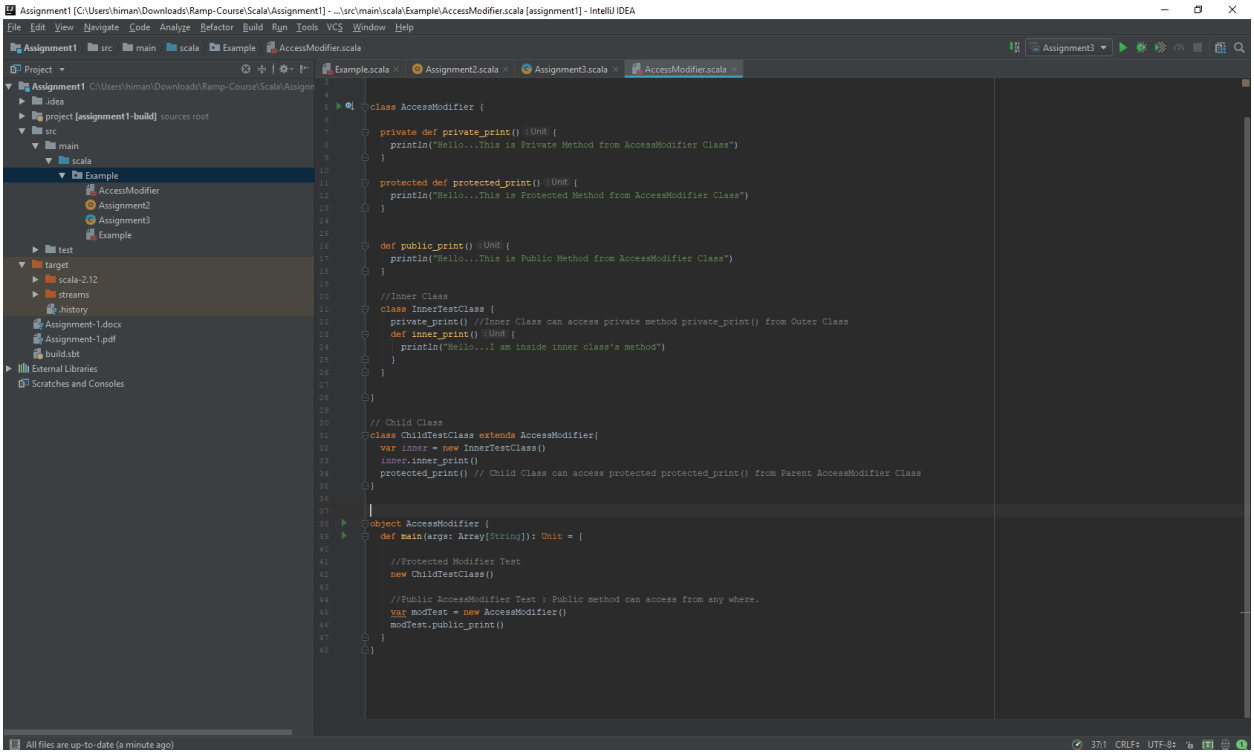


Q 2) Create scala classes and objects which makes use of access modifiers.



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Q 3) In a few sentences, elaborate your understanding of case classes and normal classes.

Case classes can be seen as plain and immutable data-holding objects that should exclusively depend on their constructor arguments.

This functional concept allows us to

- use a compact initialization syntax (Node(1, Leaf(2), None)))
- decompose them using pattern matching
- have equality comparisons implicitly defined

In combination with inheritance, case classes are used to mimic algebraic datatypes.

If an object performs stateful computations on the inside or exhibits other kinds of complex behavior, it should be an ordinary class.

Defining a case class gives you a lot of boilerplate code for free:

- Getters are generated for the constructor parameters. Setters are only generated when the parameters are declared as var. They are Val by default.
- A nice toString method is generated.
- An equal and hashCode methods are generated.
- A copy method is generated to clone an object.
- An apply method is generated, removing the need to use the new keyword when creating a new instance of the class.