## **Day – 1 Homework for Lesson-2 – [ 30 Points]**

### Only Submit the tasks 3 and 4 Kotlin code in online.cs.miu.edu under Assignments.

### **Upload only the Kotlin files**

**Note:** Do not upload compressed file. No need to use GitHub for this homework. Because IntelliJ IDEA useful for Lesson 2 Homework only. From Lesson 3 onwards you are going to work with Android Studio only.

## Perform the given tasks (Submit 3 & 4 for this homework)

- 1. Read Lesson -1
- 2. Practice Kotlin fundamentals discussed in Lesson 2 and more examples in the given below link
  - a. https://play.kotlinlang.org/byExample/overview
- 3. Install IntelliJ Idea from <a href="https://www.jetbrains.com/idea">https://www.jetbrains.com/idea</a> and click Download and select Community based on your OS. Then do your homework using IntelliJ Idea IDE.
  - a. Create a function to print the last digit and first digit of the given Int value. Get integer input from the console.

Example:  $1245 \rightarrow 15$ 

b. Write a function to find the sum of odd squared values in the given array of integers.

Example: Arrays contains  $\{1, 2, 3, 4, 6, 5\}$ Output:  $1^2 + 3^2 + 5^2 \rightarrow 1 + 9 + 25 = 35$ .

c. Write a Program using **when** expression to find the weight of a person in various planets according to the choice of user input from the console. Assume inputs in pounds.

Weight = Input \* Relative gravity

# **Choice Planet Relative gravity**

- 1 Venus 0.78
- 2 Mars 0.39
- 3 Jupiter 2.65
- 4 Saturn 1.17
- 5 Uranus 1.05

#### 6 Neptune 1.23

- 4. Practice OO Concepts (Class, Object, Getters and Setters, Inheritance, Override etc.,
  - a. Create a class Book with the fields title, author and price. Make a constructor which initialize all the fields. Add a behavior with read() and just print a message "Reading Paper book".
  - b. Create a subclass EBook from Book, include additional attribute filetype as String. (ex: pdf, epub, kindle etc.,). Override read() method and print the message as "Read from Electronic Device".
  - c. Write a Test class. Create object for Book and EBook. Make use of getters and setters.
- 5. Install Android SDK in your own Machine from the given link. From Lesson 3 all apps are going to develop using only Android Studio

https://developer.android.com/studio/install

To run your app using Android Emulator, need to enable VT-x from BIOS to install HAMX for Android studio. Google it the procedure depends on your platform. Will check emulator working or not during Lesson-3 practices.