CSE 408- Lab #5
Kotlin Programming

Due: Tuesday May 26th 11:59 pm

Lab objectives:
After the lab, you should know how to
- create and use individual repository on GitHub
- make changes to a file and push them to GitHub as commits
- install IntelliJ IDEA IDE
- write , compile and execute code in Kotlin

Lab activities:
1. write a function compare that accepts two numbers x, y. If x less than y return 1 , if x>y return -1 else return 0.
2. Write Kotlin code to display the age group based on the map below: 0-20 Family, 60-100 senior, normal. Use the "When" statement not if else. Run the code for different ages .
3. For the following code: replace this if with a when(file: p3.kt)

```kotlin
fun main() {
  var cardPoints = 7_000

  // TODO: replace this if with a when
  // try to use ranges!

  val cardLevel: String = if (cardPoints >= 0 && cardPoints < 1000) {
    "pearl"
  } else if (cardPoints >= 1000 && cardPoints < 5_000) {
    "silver"
  } else if (cardPoints >= 5_000 && cardPoints < 10_000) {
    "gold"
  } else {
    "platinum"
  }

  val plural = if(cardPoints > 1 || cardPoints == 0) "s" else ""
  println("You have $cardPoints point$plural and are at the $cardLevel level.")
}
```

4. Write the code to read the text file and print its content

5. Write the code to implement the inheritance described below :
   Individual classes without inheritance. With the use of inheritance and power of OOP

MathTeacher	Footballer	Businessman
talk()	talk()	talk()
walk()	walk()	walk()
teachMath()	playFootball()	runBusiness()

Figure 1 No inheritance

Person

talk()
walk()
eat()

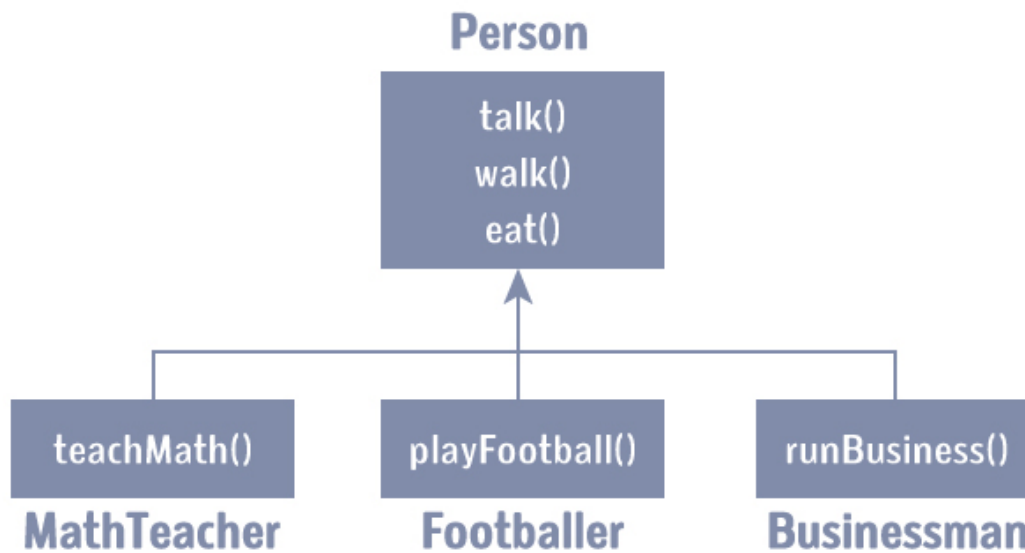| teachMath()	playFootball()	runBusiness()
MathTeacher	**Footballer**	**Businessman**

Figure 2 with inheritance

Sample run:

```
My name is Tony.
My age is 25
I teach in CSUSB.

My name is Henry.
My age is 29
I play for LA RAMS.

My name is Henry.
My age is 29
I work for FB
```

Lab Deliverables:
1. Create GitHub project lab5
2. Save all your files to GitHub
3. Submit the link to the repository in Blackboard
4. Submit the .kt files to blackboard.

Grading
This lab is worth 100 points
Resources:

https://kotlinlang.org/
https://kotlinlang.org/docs/reference/basic-syntax.html
https://www.programiz.com/
… many more