

Batch #14 / Android Class
Remote Learning Assignment - Week 1

Answer **Q1**, **Q2** and **Q3** in any text file. Upload the project includes **Q4**, **Q5**, **Q6** and the text file (**Q1**, **Q2** and **Q3**) to your GitHub and **send a direct message to us that you have completed.**

0. Please apply for a GitHub account and create a repository then upload your homework to the repository. After the process, please **send your repository link to us through slack direct message** and we will check your assignments through your repository every week. We need you to structure your repo as below :

```
Repository_name
-week1
    - [your assignments]
-week2
    - [your assignments]
-week3
    - [your assignments]
-week4
    - [your assignments]
```

1. Try the statements below in REPL. Please answer that there are correct or not and explain the reasons.

- a. `val id = 9527`
- b. `var number : Int = 5.6`
- c. `var title = "Hello Kotlin!"`
- d. `val content : String = null`
- e. `val number : Double? = 556.6`
- f. `var list: List<String>? = listOf(null, null)`
- g. `var list: List<String>?? = listOf("Wayne", "Chen")`
- h. `list.size`
- i. `list?.size`

2. Read the code below, choose the correct answer and explain the reason.

```
var message = "Hello and welcome to AppWorks School :)"
when (message.length) {
    0 -> println("Aye!")
    in 1..39 -> println("Your grace.")
    in 40..56 -> println("My lord.")
    else -> println("You know nothing...")
}
```

Batch #14 / Android Class
Remote Learning Assignment - Week 1

What will the code print?

- a. "Hello and welcome to AppWorks School :)"
- b. "Aye!"
- c. "Your grace."
- d. "My lord."
- e. "You know nothing..."

3. Read the code below, choose the correct answer and explain the reason.

```
val array = // Question
val units = arrayOf("byte", "KB", "MB", "GB",
    "TB", "PB")
for ((i, value) in array.withIndex()) {
    println("1 ${units[i]} = ${value.toLong()} bytes\n")
}
```

Output:

```
1 byte = 1 bytes
1 KB = 1000 bytes
1 MB = 1000000 bytes
1 GB = 1000000000 bytes
1 TB = 1000000000000 bytes
1 PB = 1000000000000000 bytes
```

Which answer is the correct way to initialize the array to output.

- a. `val array = new Array(6)`
- b. `val array = {100}`
- c. `val array = Array(6) { 1000.0.pow(10) }`
- d. `val array = Array(6) { 1000.0.pow(it) }`

4. Create a new class, `Human`, includes:

- a. Pass in a mandatory String argument for the `name`.
- b. Add a method, `attack()`, that prints "`<the name passed in> use Fist Attack!`".
- c. In the `main()` function, create an instance of `Human`, and call the `attack()` method to print.

5. Create a subclass of `Human`; name it `Mage`, includes:

- a. Pass in a mandatory String argument for the `name`, also for the constructor of `Human`.
- b. Override the `attack()` method to print "`<the name passed in> use Fireball!`".
- c. In the `main()` function, create an instance of `Mage`, and call the `attack()` method to print.

6. Now you have to add a flag to confirm if the `Human` has mana or not, try to implement and print it in the `main()` function.