KOTLIN BASICS

Training Assignment

Document Code	25e-BM/HR/HDCV/FSOFT
Version	1.1
Effective Date	11/03/2020

Hanoi, 03/2020

RECORD OF CHANGES

No	Effective Date	Change Description	Reason	Reviewer	Approver

CODE:	<Assignment Code>
TYPE:	<Type of Assignment>
LOC:	<Lines of Code>
DURATION:	<Duration in minutes>

Day 2. KOTLIN BASICS

Task 1. Create an extension function of Int to convert the integer value to a hexadecimal string.

Example:

```
val hexStr = 200.toHexString()

println(hexStr) // result is “C8”
```

Task 2. Create a extension function to convert a byte of hexadecimal string to binary string.

Example:

```
val result = “C8”.toBinaryString()

println(result) // result is “11001000”
```

Task 3. Create a function, input is a hexadecimal string, the size of this string must be 4 byte. Convert this string to binary string. Turn-off the bit 3 of byte 2 to 0. The result of function is a hexadecimal string after turn-off B2b3. The function could be extension function or normal function.

Example:

```
val result = turnOffB2b3(“12345678”)

println(result) // result is “12305678”
```

Task 4. Print out to screen 20 first numbers of Fibonacci order by descending.

Task 5. Create a program:

1. Input a primary account numbers (PAN) of a ATM card. Length of PAN is from 12-19 digits. PAN only allow numeric characters.

2. Validate the entered PAN using Luhn algorithm.

(Refer to https://en.wikipedia.org/wiki/Luhn_algorithm or https://vi.wikipedia.org/wiki/Thuật_toán_Luhn)

3. Print out to screen the card type of entered PAN.

Know that:

PAN is start by	Card Type
4	VISA Card
50..69, 2221..2720	Master Card
3528..3589	JCB Card
Other	Unknown Card