CSE 342

Class - 01 (Lab - 01)

① Attendance

② Lab Report (will be discussed in next class)

③ Continuous Performance (Evaluation)

Syntax of Java → until Mid-term

Mid এর পর project in Java

Lab Mid Final — 30 Marks

Project — 40 Marks

Data Type

primitive

non-primitive { reference / object } (array, object)

Taking input in Java

```
import java.util.*;
```

↑ all modules of "util"

```
public class first{
    public static void main(String args[]){
        Scanner sc = new Scanner(System.in);
        int a = sc.nextInt();
        System.out.println("value of a="+a);
    }
}
```

Data types

① primitive types → built-in types (no references needed)

② non-primitive types → reference/object types (new keyword needed)

<primitives>

Integer range (-2^7 to 2^7-1)
- byte (8 bit)
- short (16 bit)
- int (32 bit)
- long (64 bit)

10l
10L
↑ L is required to represent large values

Floating Point
- float (~6-7)
- double (~15-16) (32 bit)

Character
- Single character

Boolean
- true or false

<non-primitive>

String, Array, Object

Taking string inputs
↳ sc.nextLine();

Taking a character (token)
↳ sc.next();

#Array declaration in Java

int a[] or int[] a
↑ (recommended)

⑤ int a[] = new int[10]; // declaration
↑ array's size

⑥ int a[] = {1, 2, 3, 4, 5}; // initialization
↑ only first item's address contains here since array is contiguous, we can retrieve the other items

Arbitrary ~~class~~ object declaration

first f1 = new first();

* Static object'র ভেতর method call করতে হলে method কেও static হতে হবে।
* non-static method হলে, parent class'র object create করে তার পর method call করতে হবে।

labClass 01 :

- Hello World
- IntegerInput
- Arithmetic Operations
- ArrayIntInput

① Write a method named maxI() which receives double type array and print the maximum value.

② Write a method named factorial() which calculates factorial of a given number.

③ Write a method check() whether a value is prime or not.