Ahsanullah University of Science and Technology
Course Title: Object Oriented Programming Lab
Course Number: CSE1206
Fall 2020

Offline: 2 Section: C1

Total Marks: 20

1. Project Name: BatsmanSelection (contains class **BatsmanSelection** which has the main method) Create 2 separate classes: **Batsman , Committee**	**1**
2. Design the **Batsman class:** a. **private** variables**: totalRuns** (int) ,**totalOuts** (int) b. Create the parameterized constructor taking both private variables. c. Declare the getter setter methods for the private variables.	**1+2+4 =7**
3. Design the **Committee class:** a. Create variable: **public Batsman batObj;** b. Create the constructor taking Batsman object as the parameter.	**1+2= 3**
4. Inside **Committee** class create a **void** method named: **calculateAverage()** Here calculate the average of a Batsman using the formula: **totalRuns / totalOuts** Then print this average inside this method. You will need to use the variable **batObj** of Batsman class and the getter methods**.**	**2**
5. Create objects of **Batsman** and **Committee classes.** Initialize using the parameterized constructors. Also call the **calculateAverage()** method. ***Extra marks if you take user input.**	**2+1 = 3**
6. Inside the **calculateAverage()** method, check the selection process as follows: **Calculate the sum of each digit raised to the power of their position.** If this sum is equal to the original average number then print “Batsman selected" Otherwise print “Batsman not selected”	**4**
Total:	**20**

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For example,
Suppose,
totalRuns = 3645 and totalOuts = 27
Then average = 3645 / 27 = 135
Sum of the square of 135 is = $\mathbf{1^1 + 3^2 + 5^3}$ = 1 + 9 + 125 = 135
Which is equal to the original average number. So you print “Batsman selected”
You can use Math.pow(value, power)

Sample Input 1	Sample Output
Total Runs : 3645 Total Outs : 27	Average of Batsman is: 135 Batsman selected

Sample Input 2	Sample Output
Total Runs : 3000 Total Outs : 31	Average of Batsman is: 96 Batsman not selected

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