

DAILY ONLINE ACTIVITIES SUMMARY

Date:	15/06/2020	Name:	Prathiksha
Sem & Sec	8 th sem & B sec	USN:	4AL16CS070
Online Test Summary			
Subject	System Modeling and Simulation(SMS)		
Max. Marks	60	Score	No mail Received
Certification Course Summary			
Course	Artificial Intelligence in Python		
Certificate Provider	Great Learning Academy	Duration	7hrs
Coding Challenges			
Problem Statement: 1. Program to reverse the array in java.			
Status: Solved			
Uploaded the report in Github		Yes	
If yes Repository name		Prathiksha	
Uploaded the report in slack		Yes	

Online Test Details:

Certification Course Details:

The screenshot shows a web browser displaying the Great Learning certification course page. The URL is olympus.greatlearning.in/courses/12381/pages/back-propagation-and-gradient-descent?module_item_id=536384. The page features a navigation bar with the Great Learning logo, 'Home', 'Live Sessions', and 'Certificates' links. A 'My Courses' button and a user profile icon are also present. The main content area is titled 'Back Propagation and gradient Descent'. On the left, a 'Content' sidebar lists various topics, with 'Back Propagation and gradient Descent' highlighted. The main content area displays a slide titled 'Introduction to machine learning' with a 'Gradient Descent' section. The slide lists six steps: 1. Let target value for a training example X be y i.e. The data frame used for training has value X, y ; 2. Let the model (represented by random m and c) predict the value for the training example X to be \hat{y} ; 3. Error in prediction is $E = \hat{y} - y$. If we sum all the errors across all data points, some will be positive some negative and thus cancel out; 4. To prevent the sum of errors becoming 0, we square the error i.e. $E = (y - \hat{y})^2$. Note: in squared expression, $y - \hat{y}$ or $\hat{y} - y$ mean the same; 5. Sum of $(y - \hat{y})^2$ across all the X values is called SSE (Sum of Squared Errors); 6. Using gradient descent (descend towards the global minima). Gradient descent uses partial derivatives i.e how the SSE changes on slightly modifying the model. The slide also features a blue banner for 'Prof. Mukesh Rao' with the title 'Director of Education Data Science - Great Learning'. An 'Activate Windows' watermark is visible in the bottom right corner.

Topic : About Back Propagation and Gradient Descent.

Coding Challenges Details:

Program 1:

```
import java.util.Scanner;
public class Example
{
    public static void main(String args[])
    {
        int counter, i=0, j=0, temp;
        int number[] = new int[100];
        Scanner scanner = new Scanner(System.in);
        System.out.print("How many elements you want to enter: ");
        counter = scanner.nextInt();

        for(i=0; i<counter; i++)
```

```
{  
    System.out.print("Enter Array Element" + (i + 1) + ": ");  
    number[i] = scanner.nextInt();  
}
```

```
j = i - 1;  
i = 0;  
scanner.close();  
while(i < j)  
{  
    temp = number[i];  
    number[i] = number[j];  
    number[j] = temp;  
    i++;  
    j--;  
}
```

```
System.out.print("Reversed array: ");  
for(i = 0; i < counter; i++)  
{  
    System.out.print(number[i] + " ");  
}
```

```
}  
}
```