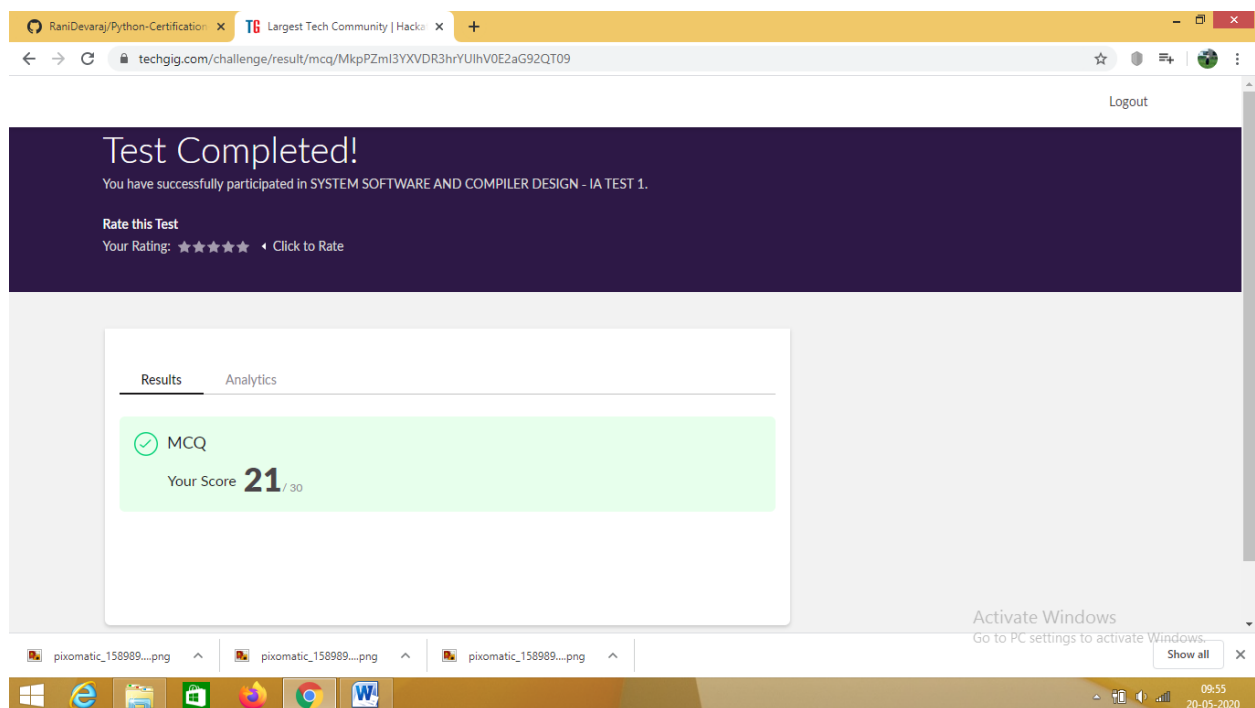


## DAILY ONLINE ACTIVITIES SUMMARY

Date:	20 MAY 2020	Name:	Rani M.D
Sem & Sec	VI & B	USN:	4AL17CS075
<b>Online Test Summary</b>			
Subject	System Software and Compiler design		
Max. Marks	30	Score	21
<b>Certification Course Summary</b>			
Course	Machine learning with python		
Certificate Provider	Cognitiveclass	Duration	10 hours
<b>Coding Challenges</b>			
<p><b>Problem Statement:</b></p> <p><b>Program1</b> Write a C Program to Reverse a Linked List in groups of given size. Test Case 1: If a linked list is: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 The value of size k is 2 Then the linked list looks like: 2 → 1 → 4 → 3 → 6 → 5 → 8 → 7 Test Case 2: If a linked list is: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 The value of size k is 3 Then the linked list looks like: 3 → 2 → 1 → 6 → 5 → 4 → 8 → 7</p> <p><b>Program2</b> Java Program which illustrates how to get column properties from ResultSet using ResultSetMetaData ResultSetMetaData is an object that can be used to get information about the types and properties of the columns in a ResultSet object. Below example shows how to get ResultSet column properties using ResultSetMetaData object.</p> <p><b>Program3</b> Python Program to Exchange the Values of Two Numbers using ^ (exclusive or operator)</p> <p><b>Program4</b> Python Program to Reverse a Given Number This is a Python Program to reverse a given number. Problem Description The program takes a number and reverses it and store it in another variable and show it</p>			

<b>Status: DONE</b>	
<b>Uploaded the report in Github</b>	<b>YES</b>
<b>If yes Repository name</b>	<b>DAILY STATUS,QUARENTINE CODING,PYTHON CERTIFICATION</b>
<b>Uploaded the report in slack</b>	<b>YES</b>

**Online Test Details: (Attach the snapshot and briefly write the report for the same)**



**Certification Course Details: (Attach the snapshot and briefly write the report for the same)**

DAILY-STATUS/online-coding-re...
Inbox (20) - ranimd141998@gm...
[GitHub] Please verify your devi...
Intro to Classification (3:53)

courses.cognitiveclass.ai/courses/course-v1:CognitiveClass+ML0101ENv3+2018/courseware/76d637cbe8024e509dc445df847e6c3a/dde323440a21472fadd4ef8...

## How does classification work?

Classification determines the class label for an unlabeled test case.

age	ed	employ	address	income	debtinc	creddebt	othdebt	default
41	3	17	12	176	9.3	11.359	5.009	1
27	1	10	6	31	17.3	1.362	4.001	0
40	1	15	14	55	5.5	0.856	2.169	0
41	1	15	14	120	2.9	2.659	0.821	0
24	2	2	0	28	17.3	1.787	3.057	1
41	2	5	5	25	10.2	0.393	2.157	0
39	1	20	9	67	30.6	3.834	16.668	0
43	1	12	11	38	3.6	0.129	1.239	0
24	1	3	4	19	24.4	1.358	3.278	1
36	1	0	13	25	19.7	2.778	2.147	0

Categorical Variable

age	ed	employ	address	income	debtinc	creddebt	othdebt	default
37	2	16	10	130	9.3	10.23	3.21	

A good sample of classification is the loan default prediction.

Suppose a bank is concerned about the potential for loans not to be repaid.

If previous loan default data can be used to predict which customers are likely to have

problems repaying loans, these "bad risk" customers can either have their loan application

declined or offered alternative products.

**The goal of a loan default predictor is to use existing loan default data, which is information**

about the customers (such as age, income, education, etc.), to build a classifier, pass a new customer or potential future defaulter to the model, and then label it (i.e. the

data points) as "Defaulter" or "Not Defaulter", or for example, 0 or 1.

This is how a classifier predicts an unlabeled test case.


Please notice that this specific example was about a binary classifier with two

1:19 / 3:53
Speed 1.0x
HD


DAILY-STATUS/online-coding-re...
Inbox (20) - ranimd141998@gm...
[GitHub] Please verify your devi...
K-Nearest Neighbors (9:12)

courses.cognitiveclass.ai/courses/course-v1:CognitiveClass+ML0101ENv3+2018/courseware/76d637cbe8024e509dc445df847e6c3a/3106345136b245148c64061...

## Calculating the similarity/distance in a multi-dimensional space



Customer 1		
Age	Income	Education
54	190	3



Customer 2		
Age	Income	Education
50	200	8

$$Dis(x_1, x_2) = \sqrt{\sum_{i=0}^n (x_{1i} - x_{2i})^2}$$

$$= \sqrt{(54 - 50)^2 + (190 - 200)^2 + (3 - 8)^2} = 11.87$$

2 customers.

It is indeed, the Euclidian distance.

Distance of x1 from x2 is root of 34 minus 30 to power of 2, which is 4.

What about if we have more than one feature, for example Age and Income?

If we have income and age for each customer, we can still use the same formula, but this

time, we're using it in a 2-dimensional space.

**We can also use the same distance matrix for multi-dimensional vectors.**

Of course, we have to normalize our feature set to get the accurate dissimilarity measure.

There are other dissimilarity measures as well that can be used for this purpose but, as mentioned, it is highly dependent on data type and also the domain that classification

is done for it.

As mentioned, K in k-nearest neighbors, is the number of nearest neighbors to

5:53 / 9:12
Speed 1.0x
HD

Classification accuracy

**Test set**

	tenure	age	address	income	ed	employ	equip	calicard	wireless	churn
0	11.0	33.0	7.0	136.0	5.0	5.0	0.0	1.0	1.0	1
1	33.0	33.0	12.0	33.0	2.0	0.0	0.0	0.0	0.0	1
2	23.0	30.0	9.0	30.0	1.0	2.0	0.0	0.0	0.0	0
3	38.0	35.0	5.0	76.0	2.0	10.0	1.0	1.0	1.0	0
4	7.0	35.0	14.0	80.0	2.0	15.0	0.0	1.0	0.0	0

**Predicted churn**

1
1
0
1
0

Actual Labels  $y$  Predicted Labels  $\hat{y}$

1:07 / 7:08

Skills Network Labs

/resources/data/samples/airline

Create Folder Upload Data Refresh

NAME	FILE SIZE	CREATED AT	MODIFIED AT	LAST ACCESS
2008.csvbz2	108.48 MB	5/20/2020, 8:01:54 PM	3/17/2016, 9:40:04 PM	5/20/2020, 8:01:52 PM

Back

Support

Activate Windows

Toady I learnt about classification,Intro to classification,K-Nearest Neighbors,Evaluation Metrics and some lab programs

**Coding Challenges Details: (Attach the snapshot and briefly write the report for the same)**

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```
main.c
43
44
45 int main(void)
46 {
47
48 struct Node* head = NULL;
49
50 push(&head, 8);
51 push(&head, 7);
52 push(&head, 6);
53 push(&head, 5);
54 push(&head, 4);
55 push(&head, 3);
56 push(&head, 2);
57 push(&head, 1);
58 int k;
59
60
61 printf("\nGiven linked list \n");https://www.onlinegdb.com/online_c_compiler#tab-stdin

Input
Given linked list
1 2 3 4 5 6 7 8
k=2
Reversed Linked list
2 1 4 3 6 5 8 7

...Program finished with exit code 0
Press ENTER to exit console.
```

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k=2
Reversed Linked list
2 1 4 3 6 5 8 7

...Program finished with exit code 0
Press ENTER to exit console.
```

```
2) java -cp ..\mysql-connector-java-5.1.45-bin.jar;. ReadDatabaseStructureExample
```

```
=== TABLE: customers
    customer_id - INT(10)
    name - VARCHAR(45)
    Primary Key Column: customer_id

=== TABLE: mark
    date - DATE(10)
    subject - VARCHAR(45)
    score - INT(10)
    student_id - INT(10)
```

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:09359112e, Jul 8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:/Users/Franavim/AppData/Local/Programs/Python/Python37-32/llp.py
enter the value of x5
enter the value of x9
Before swapping:
Value of x : 5 and y : 9
After swapping:
Value of x : 9 and y : 5
>>>
```

Ln 11, Col: 4

```
▶ n=int(input("Enter number: "))
  rev=0
  while(n>0):
      dig=n%10
      rev=rev*10+dig
      n=n//10
  print("Reverse of the number:",rev)
```

```
↳ Enter number: 1234
   Reverse of the number: 4321
```