

## DAILY ONLINE ACTIVITIES SUMMARY

<b>Date:</b>	20-05-2020	<b>Name:</b>	John Alsten Tauro
<b>Sem &amp; Sec</b>	6 <sup>th</sup> A	<b>USN:</b>	4AL17CS037
<b>Online Test Summary</b>			
<b>Subject</b>	System software and compiler design(SSCD)		
<b>Max. Marks</b>	30	<b>Score</b>	19
<b>Certification Course Summary</b>			
<b>Course</b>	A Full Stack Web Developer – Beginner to Advanced		
<b>Certificate Provider</b>	Udemy	<b>Duration</b>	19.5hrs
<b>Coding Challenges</b>			
<p><b>Problem Statement:</b></p> <ol style="list-style-type: none"><li>1. Write a simple Python program to implement Diffie–Hellman Key Exchange Example.</li><li>2. Write 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</li><li>3. Python Program to Exchange the Values of Two Numbers using ^ (exclusive or operator).</li><li>4. Write a c program to reverse a linked list in a groups of given size.</li></ol> <p>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</p> <p>Test Case 2: If a linked list is: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8</p>			

The value of size k is 3

Then the linked list looks like:  $3 \rightarrow 2 \rightarrow 1 \rightarrow 6 \rightarrow 5 \rightarrow 4 \rightarrow 8 \rightarrow 7$

**Status: YES, Completed all Programs**

**Uploaded the report in Github**

**YES**

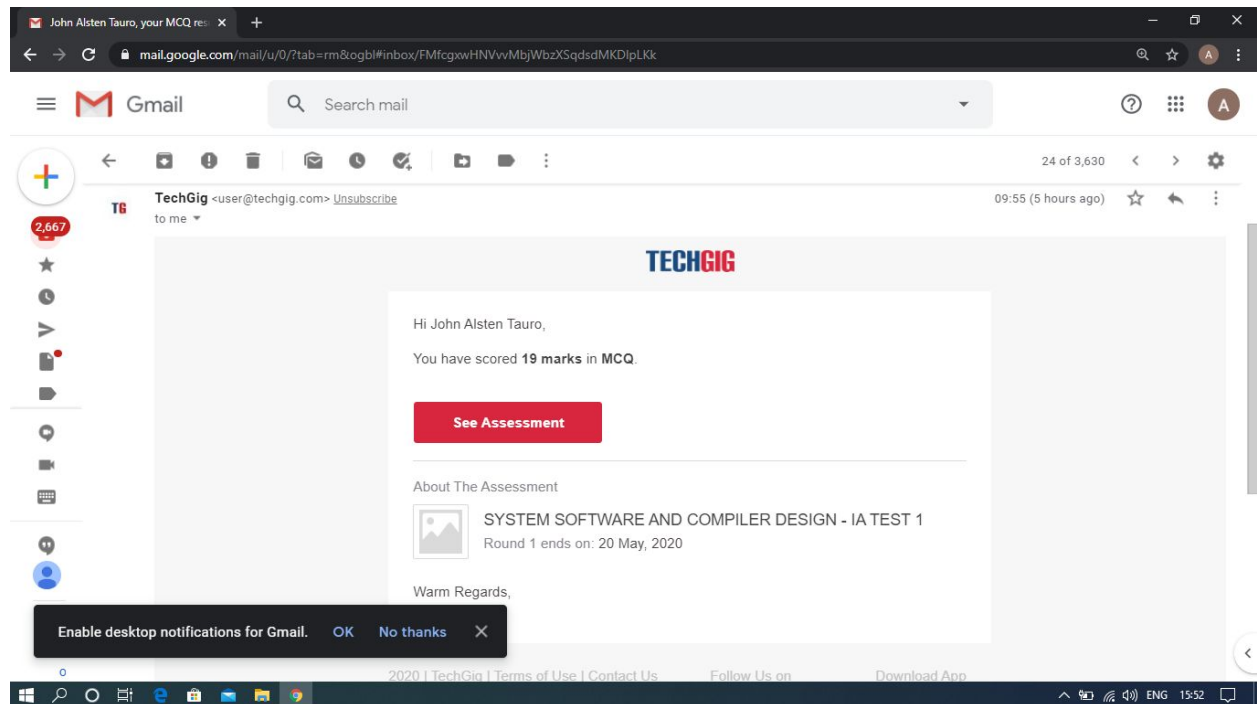
**If yes Repository name**

[https://github.com/alvas-education-foundation/Alsten\\_Tauro-4AL17CS037](https://github.com/alvas-education-foundation/Alsten_Tauro-4AL17CS037)

**Uploaded the report in slack**

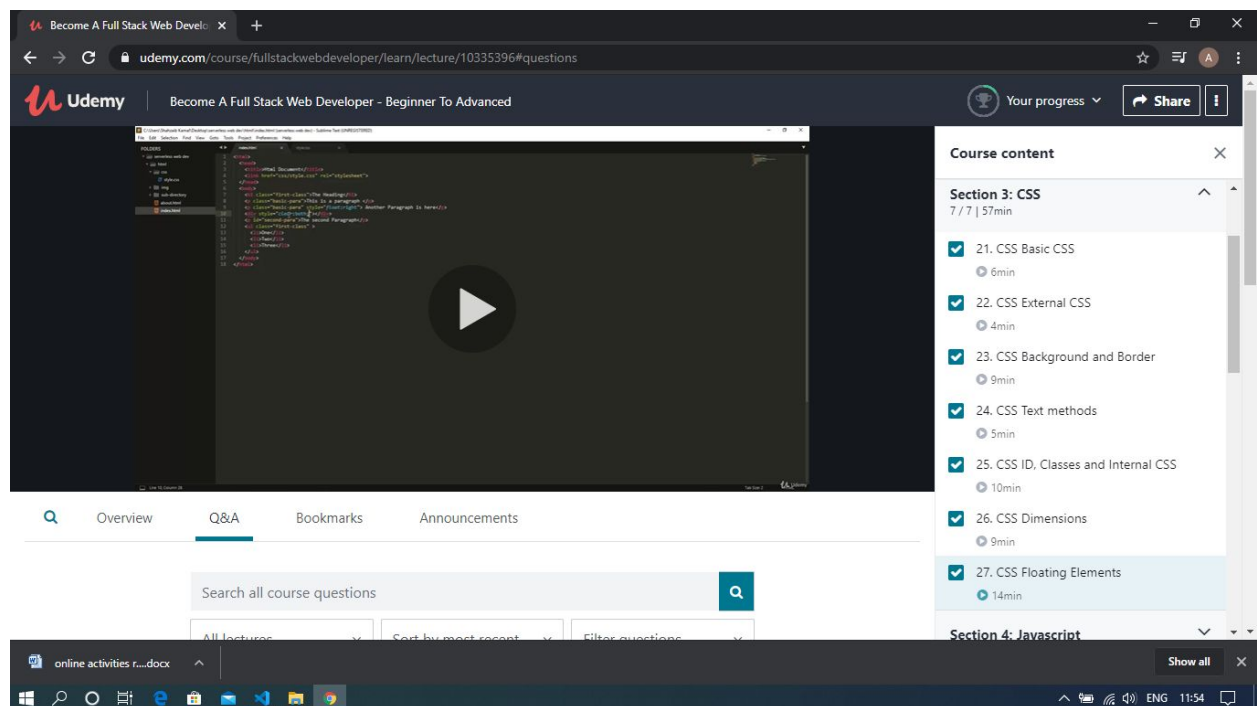
**YES**

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



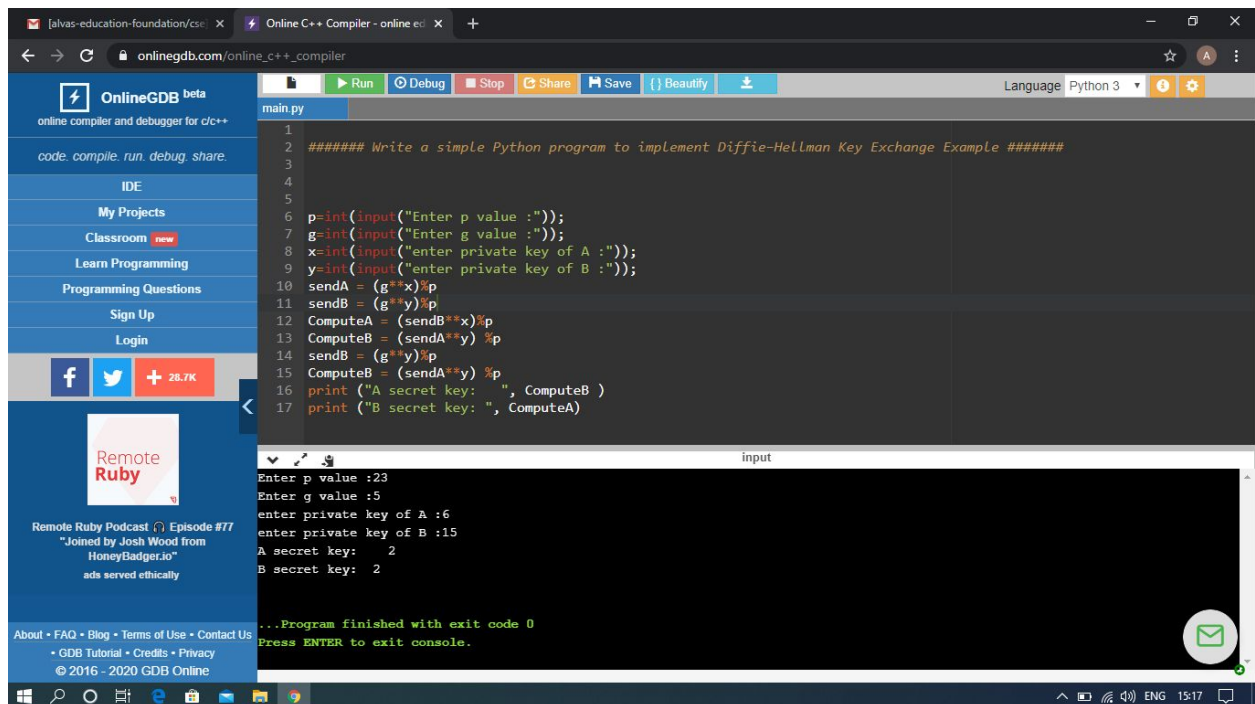
Scored 19 out of 30 in SSCD 1<sup>st</sup> I.A test

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



The above course is being taken up by me which is based on the full stack web development. It started with the basics of HTML, Today in Online course I studied about basics of CSS, External CSS, CSS background and border, CSS text methods, CSS ID, classes and Internal CSS, CSS dimensions and also about CSS floating elements. The details of the course and certificate provider is mentioned in the above form.

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



The screenshot shows the OnlineGDB website interface. The left sidebar contains navigation links: OnlineGDB beta, code.compile.run.debug.share, IDE, My Projects, Classroom, Learn Programming, Programming Questions, Sign Up, and Login. Below these are social media links for Facebook and Twitter, and a Remote Ruby Podcast advertisement. The main area displays a Python program for Diffie-Hellman Key Exchange. The code is as follows:

```
1 ##### Write a simple Python program to implement Diffie-Hellman Key Exchange Example #####
2
3
4
5
6 p=int(input("Enter p value :"));
7 g=int(input("Enter g value :"));
8 x=int(input("enter private key of A :"));
9 y=int(input("enter private key of B :"));
10 sendA = (g**x)%p
11 sendB = (g**y)%p
12 ComputeA = (sendB**x)%p
13 ComputeB = (sendA**y) %p
14 sendB = (g**y)%p
15 ComputeB = (sendA**y) %p
16 print ("A secret key: ", ComputeB )
17 print ("B secret key: ", ComputeA)
```

The console output shows the program execution with the following input and output:

```
input
Enter p value :23
Enter g value :5
enter private key of A :6
enter private key of B :15
A secret key:  2
B secret key:  2

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

OnlineGDB beta  
online compiler and debugger for c/c++  
code. compile. run. debug. share.

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main.py

```
1 n=int(input("Enter number: "))
2 rev=0
3 while(n>0):
4     dig=n%10
5     rev=rev*10+dig
6     n=n//10
7 print("Reverse of the number:",rev)
```

input

```
Enter number: 8965
Reverse of the number: 5698

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

OnlineGDB beta  
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main.py

```
1 ##### Write a simple Python program to swap a number using xor(^) #####
2
3
4
5 x=int(input('Enter X value :'))
6 y=int(input('Enter Y value :'))
7 x=x^y
8 y=x^y
9 x=x^y
10 print('After Swapping X = ',x)
11 print('After Swapping Y = ',y)
12
```

input

```
Enter X value :45
Enter Y value :18
After Swapping X = 18
After Swapping Y = 45

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

The screenshot shows the OnlineGDB interface with a C++ program. The code defines an array of keys {1, 2, 3, 4, 5, 6, 7, 8} and a function to reverse groups of size k. The program is executed with input 2, resulting in the output: 2 -> 1 -> 4 -> 3 -> 6 -> 5 -> 8 -> 7 -> NULL. The console also shows the program finished with exit code 0.

```
main.c
58 int main(void)
59 {
60
61     int keys[] = { 1, 2, 3, 4, 5, 6, 7, 8 };
62     int n = sizeof(keys)/sizeof(keys[0]);
63     int k;
64     printf("Enter the size to reverse:");
65     scanf("%d",&k);
66
67     struct Node *head = NULL;
68     for (int i = n - 1; i >=0; i--)
69         push(&head, keys[i]);
70
71     head = reverseInGroups(head, k);
72
73     printList(head);
74 }
```

input

Enter the size to reverse:2  
2 -> 1 -> 4 -> 3 -> 6 -> 5 -> 8 -> 7 -> NULL

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

The screenshot shows the OnlineGDB interface with the same C++ program. The program is executed with input 3, resulting in the output: 3 -> 2 -> 1 -> 6 -> 5 -> 4 -> 8 -> 7 -> NULL. The console also shows the program finished with exit code 0.

```
main.c
58 int main(void)
59 {
60
61     int keys[] = { 1, 2, 3, 4, 5, 6, 7, 8 };
62     int n = sizeof(keys)/sizeof(keys[0]);
63     int k;
64     printf("Enter the size to reverse:");
65     scanf("%d",&k);
66
67     struct Node *head = NULL;
68     for (int i = n - 1; i >=0; i--)
69         push(&head, keys[i]);
70
71     head = reverseInGroups(head, k);
72
73     printList(head);
74 }
```

input

Enter the size to reverse:3  
3 -> 2 -> 1 -> 6 -> 5 -> 4 -> 8 -> 7 -> NULL

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

The above Programs were written and executed and the output of the same is displayed above. The code for those 4 programs have been uploaded to the github repository and the link to the same is provided on the form.

