DAILY ONLINE ACTIVITIES SUMMARY

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Sem & Sec	VIII A	USN:	4AL16CS011

Online Test Summary

Subject	Big data analysis		
Max. Marks	40	Score	29

Certification Course Summary

Course	Introduction to Ethical Hacking		
Certificate Provider	Great Learner Acdemy	Duration	6 Hours

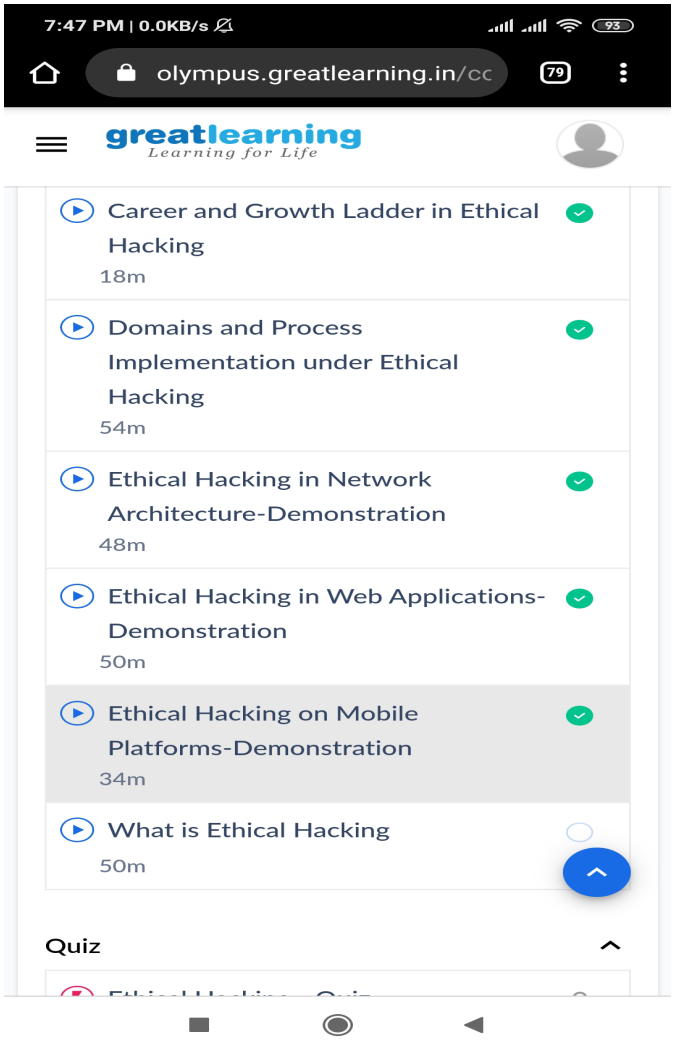
Coding Challenges

Problem Statement: First Create a Singly Linked List Stack with the node corresponding to First Element is the base of the stack; and its link field must be always Null.
When you push First Element, It is the First and it is Base of the stack. Its Link must be Null. top pointer pointing to First. (top = First)
When you push any element, (No need of checking Stack full case because SLL is dynamic) Create a new node called temp using malloc function and insert the a number into Data field, and Link field must be pointing to top; and move the pointer top to point to temp.
When you pop, First check for stack Empty. if First == NULL, then Stack Empty. If it is not empty, The pointer temp must be pointing to top. Move the pointer top to top->link. delete temp.
When you display the stack element, First Check for Stack Empty as in pop operation. If it is not empty, Display all the elements of current stack starting from top to First

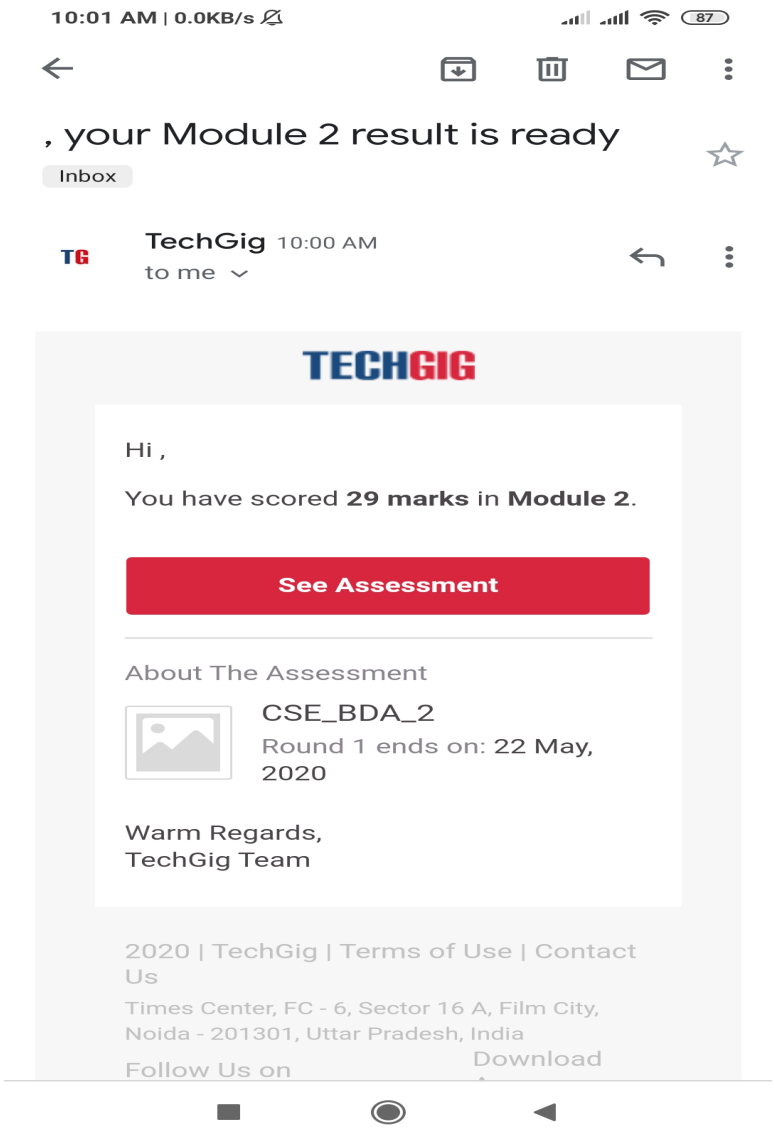
Status: Solved

Uploaded the report in Github	Yes
If yes Repository name	anaghaiyengar/online_certificate

Uploaded the report in slack	Yes



Online certification



Online test marks

Program

First Create a Singly Linked List Stack with the node corresponding to First Element is the base of the stack; and its link field must be always Null.

When you push First Element, It is the First and it is Base of the stack. Its Link must be Null. top pointer pointing to First. (top = First)

When you push any element, (No need of checking Stack full case because SLL is

dynamic) Create a new node called temp using malloc function and insert the a number into Data field, and Link field must be pointing to top; and move the pointer top to point to temp.

When you pop, First check for stack Empty. if First == NULL, then Stack Empty. If it is not empty, The pointer temp must be pointing to top. Move the pointer top to top->link. delete temp.

When you display the stack element, First Check for Stack Empty as in pop operation. If it is not empty, Display all the elements of current stack starting from top to First

```
#include <stdio.h>

#include <stdlib.h>


struct node

{

int info;

struct node *ptr;

}*top,*top1,*temp;


int topelement();

void push(int data);

void pop();

void empty();

void display();

void destroy();

void stack_count();

void create();


int count = 0;
```

```
void main()
{
int no, ch, e;

printf("\n 1 - Push");
printf("\n 2 - Pop");
printf("\n 3 - Top");
printf("\n 4 - Empty");
printf("\n 5 - Exit");
printf("\n 6 - Dipslay");
printf("\n 7 - Stack Count");
printf("\n 8 - Destroy stack");

create();

while (1)
{
   printf("\n Enter choice : ");
   scanf("%d", &ch);

   switch (ch)
   {
   case 1:
      printf("Enter data : ");
      scanf("%d", &no);
      push(no);
      break;
```

```
case 2:
   pop();
   break;
case 3:
   if (top == NULL)
      printf("No elements in stack");
   else
   {
      e = topelement();
      printf("\n Top element : %d", e);
   }
   break;
case 4:
   empty();
   break;
case 5:
   exit(0);
case 6:
   display();
   break;
case 7:
   stack_count();
   break;
case 8:
   destroy();
   break;
default :
```

```
        printf(" Wrong choice, Please enter correct choice  ");
        break;
    }
}
}

/* Create empty stack */
void create()
{
top = NULL;
}

/* Count stack elements */
void stack_count()
{
printf("\n No. of elements in stack : %d", count);
}

/* Push data into stack */
void push(int data)
{
if (top == NULL)
{
top =(struct node )malloc(1sizeof(struct node));
top->ptr = NULL;
top->info = data;
}
```

```
else
{
temp =(struct node )malloc(1sizeof(struct node));
temp->ptr = top;
temp->info = data;
top = temp;
}
count++;
}

/* Display stack elements */
void display()
{
top1 = top;

if (top1 == NULL)
{
   printf("Stack is empty");
   return;
}

while (top1 != NULL)
{
   printf("%d ", top1->info);
   top1 = top1->ptr;
}
}
```

```
/* Pop Operation on stack */
void pop()
{
top1 = top;

if (top1 == NULL)
{
   printf("\n Error : Trying to pop from empty stack");
   return;
}
else
   top1 = top1->ptr;
printf("\n Popped value : %d", top->info);
free(top);
top = top1;
count--;
}

/* Return top element */
int topelement()
{
return(top->info);
}

/* Check if stack is empty or not */
void empty()
```

```
{
if (top == NULL)
printf("\n Stack is empty");
else
printf("\n Stack is not empty with %d elements", count);
}

/* Destroy entire stack */
void destroy()
{
top1 = top;

while (top1 != NULL)
{
   top1 = top->ptr;
   free(top);
   top = top1;
   top1 = top1->ptr;

free(top1);
top = NULL;

printf("\n All stack elements destroyed");
count = 0;
}
```