Page No.

Date ___/___/_____

25/09/20

1BM19CS052

DIVYANSHU

STACK PROGRAM

```
#include <stdio.h>
#include <stdlib.h>
#include <conio.h>
#define MAX 5
int a[MAX], top = -1;
void push();
void pop();
void display();
int main()
{
  int ch;
  printf("1. PUSH\n");
  printf("2. POP\n");
  printf("3. Display\n");
  printf("4. End Program");
  while(1)
  {
    printf("\n Enter Choice: ");
    scanf("%d", &ch);
    switch(ch)
    {
      case 1:
      {
        push();
        break;
      }
      case 2:
      {
```

```
        pop();
        break;
    }
    case 3:
    {
     display();
      break;
    }
    case 4:
    {
      exit(0);
    }
    default:
    {
     printf("Wrong Choice");
    }
  }
 }
}
void push()
{
 int data;
 if (top == MAX-1)
 {
  printf("\n Stack Overflow");
 }
 else
 {
    printf("Enter Element to be Pushed:");
    scanf("%d", &data);
     top++;
```

```
        a[top]=data;
    }
}
void pop()
{
    if(top==-1)
    {
        printf("Stack Underflow");
    }
    else
    {
        printf("Popped Element: %d", a[top]);
        top--;
    }
}
void display()
{
    int i;
    if(top>=0)
    {
        printf("Elements:");
        for(i=top; i>=0; i--)
        printf("\n%d", a[i]);
    }
    else
    {
        printf("The Stack is Empty");
    }
}
```