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LBM19CS010

LAB-1

```
#include <stdio.h>
int top = -1;
void push (int stack[], int ele);
int pop (int stack[]);
void display (int stack[]);

int main()
{
  int stack[5]
  int i, choice, ele;

  do
  {
    printf ("Menu");
    printf ("1. Push\n");
    printf ("2. Pop\n");
    printf ("3. Display\n");
    printf ("4. Exit\n");
    printf ("Enter your choice\n");
    scanf ("%d", &choice);
    switch(choice)
    {
        case1: printf("Enter the elenet that you want to push\n");
        scanf ("%d", &ele);
        break;

        case2:
        ele = pop(stack);
        if (ele == -1)
        printf("Stack underflow\n");
```

```
else printf("The popped element is %d\n", ele);
break;
case 3: display(stack);
        break;
case 4: printf("Exiting\n");
        break;
default: printf("Invalid choice\n");
}
}
while(choice != 4);
return 0;
}

void push(int stack[], int ele)
{
if(top == 4)
{
printf("stack overflow");
}
else
{ top++;
  stack[top] = ele;
}
}
int pop(int stack[])
{
int popele;
if(top == -1)
return -1;
```

```
else
  {
  popele=stack[top];
    top--;
  return (popele)
} }

void display(int stack[])
  {
    int i;
    printf ("The stack elements\n");
    for (i=top; i>=0; i--)
      {
        printf ("%d" stack[i]);
  } }
```