1.stack implementation

```c
#include <stdio.h>
#define n 5

void push();
void pop();
void display();

int top=-1;
int stack[n];

void main()
{
    int ch;
    printf("SHREYA S RUDAGI\n");
    printf("1BM22CS267\n\n");
    while(1)
    {
        printf("Stack menu:\n");
        printf("\n1.Push \n2.Pop \n3.Display \n4.exit\n\n");
        printf("Select your choice:");
        scanf("%d",&ch);
        switch(ch)
        {
            case 1:push();
                break;
            case 2:pop();
                break;
```

```c
        case 3:display();
            break;
        case 4:exit(0);
        default:printf("Invalid choice");
    }
  }
}
void push()
{
  int val;
  if(top==n-1)
  {
    printf("Stack is full");
  }
  else
  {
    printf("Enter the element:");
    scanf("%d",&val);
    top++;
    stack[top]=val;
  }
}
void pop()
{
  if(top==-1)
  {
    printf("Stack is empty");
  }
```

```c
        else
        {
            printf("Deleted element is %d",stack[top]);
            top--;
        }
    }
    void display()
    {
        if(top==-1)
            printf("Stack is empty");
        else
        {
            int i;
            for(i=top;i>=0;i--)
                printf("%d\n",stack[i]);
        }
    }
```

OUTPUT:

```
SHREE VARNA M
1BM22CS263
Stack menu:
1.Push
2.Pop
3.Display
4.exit

Select your choice:1
Enter the element:3
Stack menu:
1.Push
2.Pop
3.Display
4.exit

Select your choice:1
Enter the element:4
Stack menu:
1.Push
2.Pop
3.Display
4.exit

Select your choice:3
4
3
Stack menu:
1.Push
2.Pop
3.Display
4.exit

Select your choice:2
Deleted element is 4
Stack menu:
1.Push
2.Pop
3.Display
4.exit

Select your choice:4

Process returned 0 (0x0)   execution time : 21.443 s
Press any key to continue.
```