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#include<stdio.h>

int stack[100],choice,n,top,x,i;

void push(void);

void pop(void);

void display(void);

int main()
{
    top=-1;

    printf("\n Enter the size of STACK[MAX=100]:");

    scanf("%d",&n);

    printf("\n\t STACK OPERATIONS USING ARRAY");

    printf("\n\t 1.PUSH\n\t 2.POP\n\t 3.DISPLAY\n\t 4.EXIT");

    do
    {
        printf("\n Enter the Choice:");

        scanf("%d",&choice);

        switch(choice)
        {
            case 1:
            {
                push();

                break;
            }

            case 2:
            {
                pop();

                break;
            }

            case 3:
            {
                display();
```

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        break;
    }
    case 4:
    {
        printf("\n\t EXIT POINT ");
        break;
    }
    default:
    {
        printf ("\n\t Please Enter a Valid Choice(1/2/3/4)");
    }

}
}
while(choice!=4);
return 0;
}
void push()
{
    if(top>=n-1)
    {
        printf("\n\tSTACK is over flow");

    }
    else
    {
        printf(" Enter a value to be pushed:");
        scanf("%d",&x);
        top++;
        stack[top]=x;
    }
}

```

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}
void pop()
{
    if(top<=-1)
    {
        printf("\n\t Stack is under flow");
    }
    else
    {
        printf("\n\t The popped elements is %d",stack[top]);
        top--;
    }
}
void display()
{
    if(top>=0)
    {
        printf("\n The elements in STACK \n");
        for(i=top; i>=0; i--)
            printf("\n%d",stack[i]);
        printf("\n Press Next Choice");
    }
    else
    {
        printf("\n The STACK is empty");
    }
}

```

Enter the size of STACK[MAX=100]:20

STACK OPERATIONS USING ARRAY

1.PUSH

2.POP

3.DISPLAY

4.EXIT

Enter the Choice:1

Enter a value to be pushed:25

Enter the Choice:1

Enter a value to be pushed:26

Enter the Choice:1

Enter a value to be pushed:87

Enter the Choice:3

The elements in STACK

87

26

25

Press Next Choice

Enter the Choice:2

The popped elements is 87

Enter the Choice: