**/\* Push and pop operations of stack. \*/**

**#include<stdio.h>**

**#include<stdlib.h>**

**#include<conio.h>**

**void display\_stack(int \*a);**

**void push\_stack(int \*a,int n);**

**void pop\_stack(int \*a,int n);**

**int top=-1;**

**void display\_stack(int \*a)**

**{**

**int i;**

**for(i=top;i>=0;i--)**

**{**

**printf("\n After insertion-%d:%d",i,a[i]);**

**}**

**printf("\n This was output of your chosen opeartion :) .");**

**}**

**void push\_stack(int \*a,int n)**

**{**

**int value;**

**if(top>=n-1)**

**{**

**printf("\n Stack overflowed");**

**}**

**else**

**{**

**top=top+1;**

**printf("\n Enter the value to push: ");**

**scanf("%d",&value);**

**a[top]=value;**

**}**

**display\_stack(a);**

**}**

**void pop\_stack(int \*a,int n)**

**{**

**int value;**

**if(top<0)**

**{**

**printf("\n Stack underflow");**

**}**

**else**

**{**

**value=a[top];**

**top=top-1;**

**printf("\nValue extracted from stack: %d",value);**

**}**

**display\_stack(a);**

**}**

**void main()**

**{**

**int choice;**

**int n,a[100];**

**char ch;**

**system("cls");**

**printf("\n Enter the limit of the stack:");**

**scanf("%d",&n);**

**start:**

**printf("\nPress 1 to PUSH\nPress 2 for POP\nPress 3 for Displaying the Stack\nPress 4 for exit the process.");**

**printf("\n-->>");**

**scanf("%d",&choice);**

**switch(choice)**

**{**

**case 1: push\_stack(a,n);**

**break;**

**case 2: pop\_stack(a,n);**

**break;**

**case 3:display\_stack(a);**

**break;**

**case 4:exit(0);**

**break;**

**default: printf("\n Enter the correct choice");**

**}**

**printf("\n If you want to continue, press Y or y ");**

**printf("\n-->>");**

**ch=getch();**

**if(ch=='y'|| ch=='Y')**

**{**

**goto start;**

**}**

**printf("\n \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of the process\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");**

**printf("\n:)");**

**}**

**/\***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*OUTPUT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Enter the limit of the stack:5**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>1**

**Enter the value to push: 1**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>1**

**Enter the value to push: 2**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>1**

**Enter the value to push: 3**

**After insertion-2:3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>1**

**Enter the value to push: 4**

**After insertion-3:4**

**After insertion-2:3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>1**

**Enter the value to push: 5**

**After insertion-4:5**

**After insertion-3:4**

**After insertion-2:3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>1**

**Stack overflowed**

**After insertion-4:5**

**After insertion-3:4**

**After insertion-2:3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>2**

**Value extracted from stack: 5**

**After insertion-3:4**

**After insertion-2:3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>2**

**Value extracted from stack: 4**

**After insertion-2:3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>2**

**Value extracted from stack: 3**

**After insertion-1:2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>2**

**Value extracted from stack: 2**

**After insertion-0:1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>2**

**Value extracted from stack: 1**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**Press 1 to PUSH**

**Press 2 for POP**

**Press 3 for Displaying the Stack**

**Press 4 for exit the process.**

**-->>2**

**Stack underflow**

**This was output of your chosen opeartion :) .**

**If you want to continue, press Y or y**

**-->>**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of the process\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**:)**

**\*/**