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Batch A3

Code:

// Stack operations practice

#include <stdio.h>

int Top = -1;

int inp\_array[5];

int main() {

int choice;

printf("1.push function");

printf("\n2.pop function");

printf("\n3.display stack");

printf("\n4.peek function");

printf("\n5.check if stack is empty or full");

while(1)

{

printf("\n\nEnter the choice:");

scanf("%d",&choice);

switch(choice)

{

case 1: push();

break;

case 2: pop();

break;

case 3: display();

break;

case 4:peek();

break;

case 5:check();

break;

}

}

return 0;

}

void push()

{

int x;

printf("enter element you want to add :");

scanf("%d",&x);

Top=Top+1;

inp\_array[Top]=x;

}

void pop()

{

Top=Top-1;

}

void display()

{

for(int i=Top;i>=0;--i)

printf("%d\n",inp\_array[i]);

}

void peek()

{

printf("Top elemnt is %d ",inp\_array[Top]);

}

void check()

{

if(Top==4){

printf("stack is full");

}

else{

printf("stack is empty");

}

}

Output:

/tmp/g769ULnDVN.o

1.push function

2.pop function

3.display stack

4.peek function

5.check if stack is empty or full

Enter the choice:1

enter element you want to add :1

Enter the choice:1

enter element you want to add :2

Enter the choice:1

enter element you want to add :3

Enter the choice:1

enter element you want to add :4

Enter the choice:3

4

3

2

1

Enter the choice:2

Enter the choice:3

3

2

1

Enter the choice:4

Top elemnt is 3

Enter the choice:5

stack is empty

Enter the choice: