Lab Program 1 write a program to simulate the working stack using an array with following @ push @ pop @ display The program should print appropriate muse for stack overflow, stack underflow. # include < stdio.h> # include < stdlib.h> # define STACK_SIZE 5 int top = -1; stack [STACK_SIZE]; int s[10]; int item; () News bion if (top = = STACK_SIZE-1) } print of (" Stack Overflow: can't add more elements to stack. In"); top = top+1; s[top] = item; int pop()

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 netwern s[top--]; illding
3 void display () i sould
 3 : Wag - betetels - west i suspens
  int ist = = botalab - water fine
 if (topasis) i dont? " I thing
printf (" stack is empty. In");
 neturn; Assert
 I print + (" contents of the stack In");
 for(i= top; i>=0; i--) { decred
  printf (" xd/n", still; + LH 3600
 int main ()
 intitem-deleted;
 int choice;
 for (;;)
 printf ("In 1: Push In 2: Pop In 3: Display In 4: Exit
 print+ (" enter your choice In");
 scanf (" xd", & choice);
 switch (chaice)
  case 1: print ("Enter the item to be inserted In")
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scanf (" >d = setem) = got) push (1; 1-- got 12 went no break; Uprigue biox ? case 2: item - deleted = pop(); ? if (item-deleted = = -1) tai printf [" stack is empty In"); print + ("item deleted is /d/n", item-dele break; case 3: display () + tring & broak; (--); 0=< j; qot = j) roz casey: exit(o); "A/LX") morning some () ALDM THI ibatoles metitul 1 willy the phint f ("IN 1: PREJUNTIS EXPORTING THING "("Wasian a Bigy Return ") + tring

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57932	3: Display

4: Exitially Knap Mitig Enter your choice 2 dame in touts item deleted is 34 direct t 1: Pash 909:5 2: Pop usigzis: & 3! Display turi 4: Exitions may return Enter your choice item deleted wist 2 40 mones 1: Push 2 - POP ---3 : Display 4: Exit Entir your choice item deteted is 23 1: Push 2: Pop 3: Display 4: Exit

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