

Programming Fundamentals

QUIZE 6

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Q1) Understand the concept of Stack and implement it using arrays.

Program:

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| #include <iostream>  using namespace std;  int stack[100], n=100, top=-1;  void push(int val) {  if(top>=n-1)  cout<<"Stack Overflow"<<endl;  else {  top++;  stack[top]=val;  }  }  void pop() {  if(top<=-1)  cout<<"Stack Underflow"<<endl;  else {  cout<<"The popped element is "<< stack[top] <<endl;  top--;  }  }  void display() {  if(top>=0) {  cout<<"Stack elements are:";  for(int i=top; i>=0; i--)  cout<<stack[i]<<" ";  cout<<endl;  } else  cout<<"Stack is empty";  }  int main() {  int ch, val;  cout<<"1) Push in stack"<<endl;  cout<<"2) Pop from stack"<<endl;  cout<<"3) Display stack"<<endl;  cout<<"4) Exit"<<endl;  do {  cout<<"Enter choice: "<<endl;  cin>>ch;  switch(ch) {  case 1: {  cout<<"Enter value to be pushed:"<<endl;  cin>>val;  push(val);  break;  }  case 2: {  pop();  break;  }  case 3: {  display();  break;  }  case 4: {  cout<<"Exit"<<endl;  break;  }  default: {  cout<<"Invalid Choice"<<endl;  }  }  }while(ch!=4);  return 0;  } |

Output:

