Lecture 14.2

Revision II

Linked list

Convert the following struct to templated struct so that any type of data can be stored in a node and a linked list can be made by linking the given nodes.

```
struct node{
        int data;
        node * next;
        node * prev;
        node * top;
        node * bottom;
};
```

Answer

```
template <class T>
struct node{
        T data;
        node <T>* next;
        node <T>* prev;
        node <T>* top;
        node <T>* bottom;
};
```

Stack

- Using the following definition of stack class, write a method to empty the whole stack.

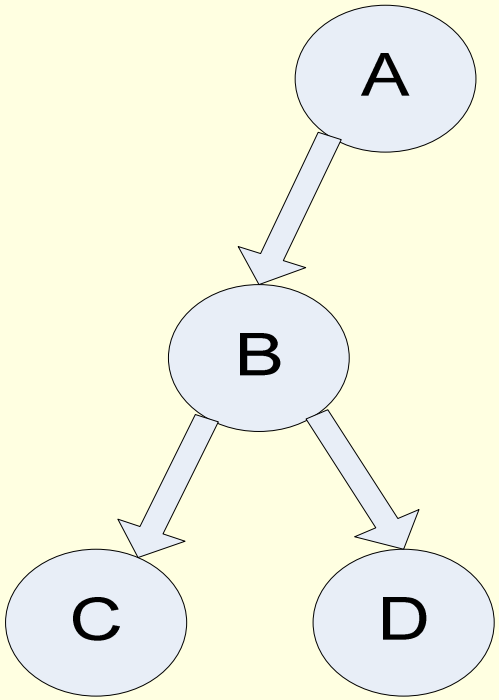
```
class stack{
        public:
        …
        int top(); //return top element
        bool pop(); //returns true if element removed
        bool push(int); //inserts data on the top of a stack
        bool isEmpty(); //returns true if stack is empty
}
```

Answer

```
Void stack::empty(){
   While(!isEmpty()){
        this->pop();
   }
}
```

Binary Tree

- Write the pseudocode for preorder traverse and then print the following binary tree using preorder traverse.



Answer:

- ABCD