**Binary Tree Zigzag Traversal**

vector<int> zigZagTraversal(BinaryTreeNode<int> \*root)

{

    // Write your code here!

    if(root==NULL) return {};

    vector<int> ans;

    int flag = 0;

    queue<BinaryTreeNode<int> \*> q;

    q.push(root);

    while(!q.empty()){

        int size = q.size();

        vector<int> ds;

        while(size--){

            BinaryTreeNode<int> \* node = q.front();

            q.pop();

            ds.push\_back(node->data);

                if(node->left)

                 q.push(node->left);

                if(node->right)

                 q.push(node->right);

        }

        if(flag==0)

        {

            reverse(ds.begin(),ds.end());

            flag=1;

        }

        else

         flag=0;

        ans.insert(ans.begin(),ds.begin(),ds.end()) ;

    }

    reverse(ans.begin(),ans.end());

    return ans;

}