DS-LAB-TEST-2

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Q2. Binary Search Tree.

```
 #include <stdio.h>
#include <stdlib.h>
 struct node
{
  int data;
   struct node* left;
   struct node *right ;
};

struct node *create ()

{

 struct node *temp;
temp = (struct node *) malloc (sizeoff (struct ));

   [illegible]
temp->left =temp -> right =NULL;
   return temp;
 }

 void insert (struct node* root, struct node *temp )
{
   if (temp -> data < root -> data )
     {
       if (root -> right ! = NULL )
          insert (root -> right ,temp );
     else
        root -> right = temp ;
     }
  }
```

```
void max(struct node* root)
 {
  while (root -> right != NULL)
 {
    root = root -> right ;
   }

void ~~preorder ();~~
    ~~{~~
      ~~if (root != NULL)~~
     ~~{~~
      ~~preorder (root -> left);~~
      ~~preorder (root -> right);~~
     ~~}~~
   }
  void postorder ();
  {
 ~~if (root != NULL)~~
   ~~{~~
    ~~postorder (root -> left);~~
    ~~postorder (root -> right);~~
    ~~}~~
   ~~}~~
 void inorder ();
{
    ~~if (root != NULL)~~
    ~~{~~
      ~~inorder (root -> left);~~
    ~~print.~~
```

```
void display ();
{
  int i;

  if (root == NULL)
       return ~~NULL~~ 0 ;
    ~~else if (root -> x == NULL)~~
      ~~return root~~
      ~~else~~
        ~~return Max(root -> x)~~;
     else
     {
  print display
int main ()
  {
int  ch , count = 1 ;
struct  node *rt ;
do
{

 [illegible]
use   switch  case  statements.

  case1 ();
  break
  case2 () ;
  break
  case 3 () ;
  break
   case4 () ;
  break
  [illegible];
  ~~break~~
  [illegible];
  break
 }
} while  (ch != 4) ;
     return 0 ;
     }
```