Disha B
1BM19CS050

10). typedef struct Node
{
int data;
struct Node *left, *right;
} node;

node * create(int data)
{
node *temp;
temp = (node*)malloc(sizeof(node));
temp->data = data;
temp->left = temp->right = NULL;
return temp;
}

void inorder(node *root)
{
if(root != NULL)
{
inorder(root->left);
printf("%d", root->data);
inorder(root->right);
}
}

void preorder(node *root)
{
if(root != NULL)
{
printf("%d", root->data);
preorder(root->left);
preorder(root->right);
}
}

void postorder(node *root)
{

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```
if(root != NULL)
{
  postorder(root->left);
  postorder(root->right);
  printf("%d", root->data);
}
}
void insert(node *root, node *temp)
{
  if(temp->data < root->data)
  {
    if(root->left != NULL)
      insert(root->left, temp);
    else
      root->left = temp;
  }
  if (temp->data > root->data)
  {
    if (root->right != NULL)
      insert(root->right, temp);
    else
      root->right = temp;
  {
}
int main(void)
{
  node *root = NULL, *temp;
  int choice = 0;
  while(choice != 2)
  {
    temp =
    printf("1- insert\n");
    printf("2- Exit\n");
```

Dis

```
printf(" Enter your choice :");
scanf(" %d", &choice);
if(choice == 1)
{
   int val;
   printf("Enter the value :");
   scanf("%d", &val);
   temp = create(val);
   if (root == NULL)
      root = temp;
   else
      insert(root, temp);
}
else if (choice == 2)
   break;
else
   printf(" Invalid choice \n");
}
printf(" Inorder traversal :");
inorder(root);
printf(" Preorder traversal :");
preorder(root);
printf(" Postorder traversal :");
postorder(root);
}
```