Week 10:

Write a program to implement the tree traversal methods.

Program:

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

node *create()
{
    node *n;
    int x;
    printf("Enter data(-1 for no node):");
    scanf("%d",&x);

    if(x==-1)
          return NULL;

    n=(node*)malloc(sizeof(node));
    n->data=x;
    printf("Enter left child of %d:\n",x);
    n->left=create();
    printf("Enter right child of %d:\n",x);
    n->right=create();
    return n;
}

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

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




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


int main()
{
  node *root;
  root=create();

  printf("\nThe inorder traversal of tree is: ");
  inorder(root);

  printf("\nThe preorder traversal of tree is: ");
  preorder(root);

 printf("\nThe post order traversal of tree is: ");
 postorder(root);

          return 0;

}
```