SSN COLLEGE OF ENGINEERING, KALAVAKKAM
(An Autonomous Institution, Affiliated to Anna University, Chennai)
Department of Computer Science and Engineering

UCS1411 – Operating Systems Laboratory

II Year CSE - B Section (IV Semester)

Lab Exercise 13   **File Organization Techniques**

AIM:

To develop a C program to implement the following file organization techniques

   a) Single level Directory

   b) Hierarchical Structure

Procedure:

   1. Single Level Directory
        a. Maintain a table containing the filename and the starting address location of that file.
        b. Give options for creating a new file.
        c. When creating the file, check for name collision.
        d. Update the table accordingly.

   2. Tree Structured Directory
        a. Maintain tables for each directory starting from root.
        b. Create a structure for a node in tree which contains an array to hold directories and an array to hold files.
        c. Limit each directory to have a maximum of three sub-directories and files.
        d. For each sub-directory follow the same table structure as described above.

SAMPLE INPUT & OUTPUT:

File Organization techniques

1.Single Level Directory
2. Tree structures directory

Enter your option: 1

1.Create a file
2.List the files

Enter your option:1

Enter the name of the file: file1
File created!

1.Create a file
2.List the files

Enter your option:1

Enter the name of the file: file2

File created!

1.Create a file
2.List the files

Enter your option:1

Enter the name of the file: file2
File already exists!

Enter your option:2
 Contents of root directory

        File Name   Location

        file1   1000

        file2   3500

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- Similarly, for all other structures