**Part-1**

**Classes:** Total seven classes are created. They are:

1.FileExplorer.java

2.FileTableModel.java

3.ListViewModel.java

4.FileListCellRenderer.java

5.FileTreeCellRenderer.java

6.TableMouseListener.java

7.ListMouse.java

**Classes’ Description:**

1.FileExplorer.java:

This class assembles all the components that are needed for making the browser.

It generates the main gui. It has six functions. They are:

i)ShowRootFile()🡪displays all files under the root node.

ii)SetTableData()🡪sets the data of the table. It takes an array of File object as parameter.

iii)SetFileDetails()🡪sets the file details in the table when a different folder is clicked

in the tree. It takes a file object as parameter.

iv)SetListDetails()🡪sets the files details in the list when a different folder is clicked in

the tree. It takes a file object as para

v)ShowChildren()🡪shows the files that are contained in a selected node of the tree.

2. FileTableModel.java:

This class makes the table view of files containing the details : File name, File size, File icon, Last modified date. It extends AbstractTableModel class of java API. It has the following functions:

1.getValueAt()🡪It’s an overridden function which takes two integer as parameter.

One for row number and the other for column number .It Returns the icon, name, size,

last modified date for the file of selected row.

2.getColumnCount()🡪returns total number of columns in the table.

3.getColumnClass()🡪Takes an integer as parameter which corresponds to column

Number. It returns icon or name or size or last modified date according to the column number.

4.getColumnName()🡪returns the name of a selected column.

5.getRowCount()🡪 Returns total number of rows.

6.getFile()🡪returns the file of selected row.

7.setFiles()🡪It calls another function fireTableDataChanged() which is a function of

The AbstractTableModel class.

3. ListViewModel.java:

This class extends the AbstractListModel class .It generates the list view of files. It has the following classes:

1.getSize()🡪overridden class. Return the length of files.

2.getElementAt()🡪shows the name of the files for selected index.

3.getFile()🡪returns the file of selected row.

4.setFiles()🡪Generates a call to fireContentsChanged() function under AbstractListModel.

4. FileListCellRenderer.java:

This class creates a view just like the computers display the files in list view.

It extends DefaultListCellRenderer class of java.

It has following function:

1.getListCellRendererComponent()🡪An overridden function which returns a JLabel type object containing details of files.

5. FileTreeCellRenderer.java:This class functions just like the FileListCellRenderer class for tree object.

6.TableMouseListener.java:

This class extends MouseAdapter class. It selects the row at which the mouse is clicked. It takes A JTable type object as parameter and sets the MouseListener to the table. So if the mouse is clicked at any point on the table it detects that point . It overrides the following function:

mousePressed(MouseEvent e)🡪selects the point at which the mouse was clicked.

7.ListMouse.java:

This class extends MouseAdapter class. It functions just like the TableMouseListener class for list object.

**Part-2**

1.Adapter Pattern🡪i)FileListCellRenderer.java ii) FileTreeCellRenderer.java

iii)FileTableModel.java iv)ListViewModel.java

2.Composite Pattern🡪FileExplorer.java