

SDL

21/1/17

Assignment 7

Title: Internal & External storage

Problem Statement:

Design a mobile app to store data using internal or external storage.

Objective:

To be able to access the internal storage as well as external.

Give permission to apps for accessing the functionality

Outcome:

Able to write & read files from internal storage as well as external storage.

S/W & H/W requirements:

64 bits Fedora / Ubuntu / Windows OS.

Java Development Kit, get the version that corresponds with your system.

Android Studio / 8GB Ram & Emulator (optional).

Theory:

Android is a mobile operating system based on a modified version of Linux kernel & other open source software.

Android studio is the official integrated development environment (IDE) for google Android operating system built on JetBrains' IntelliJ IDEA software & designed specifically for Android development.

* Internal Storage :

Android provides many kinds of storage for applications to store their data. These storages are shared preferences, internal & external storage, SD storage & storage via network connection.

Writing a File :

In order to use internal storage to write some data in the file, call the `openFileOutput()` method with name of file & the mode could be private, public etc. Its syntax is given below:-

```
FileOutputStream fout = openFileOutput("file name here", MODE);  
String str = "data";  
fout.write(str.getBytes());  
fout.close();
```

Reading File

```
FileInputStream fin = openFileInput(file);  
int c;  
String temp = "";
```



```
while ((c = fin.read()) != -1) {  
    temp = temp + Character.toString((char)c);  
}  
fin.close();
```

A- External Storage:

Android gives various options for storing apps which uses a file system similar to disk based system on computer platforms.

The data files saved over external storage devices are publicly accessible on shared external storage using USB mass storage transfer. Data files stored over external storage using a `FileOutputStream` object & can be read using a `FileInputStream`.

Methods to store data in External Storage :

```
getExternalStoragePublicDirectory();  
getExternalFilesDir(String type);  
getExternalStorageDirectory();
```

Conclusion:

We have implemented a music player app which accesses external storage & plays music.