

Dt : 27/9/2024(Day-2)

Note:

=>The 'Field Storages' and 'Object Storages',which are generated part of JVN while program execution

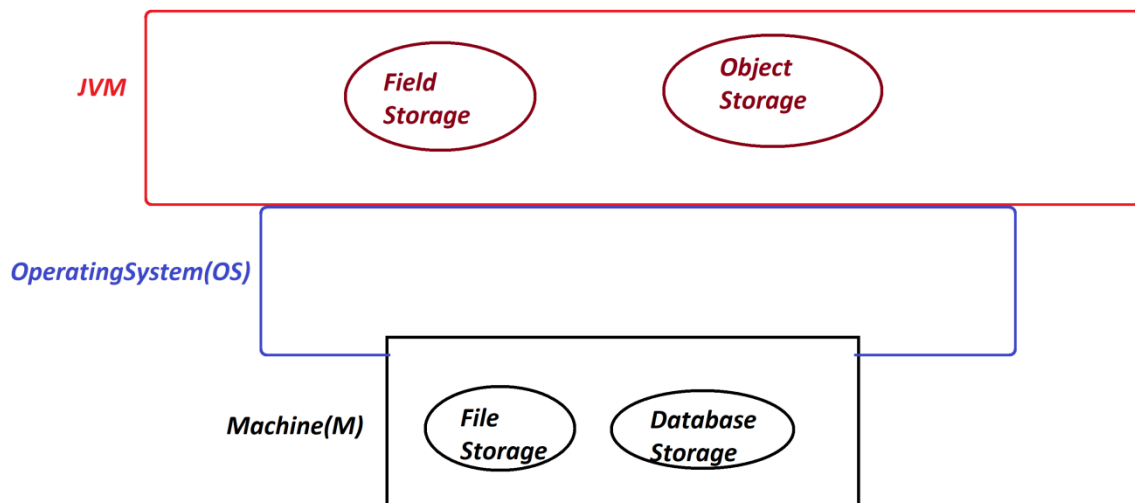
will be destroyed automatically when JVM shutdowns.

=>when we want to have permanent storage for Application,then we have to take the support of any one

of the following:

3.File Storage

4.Database Storage



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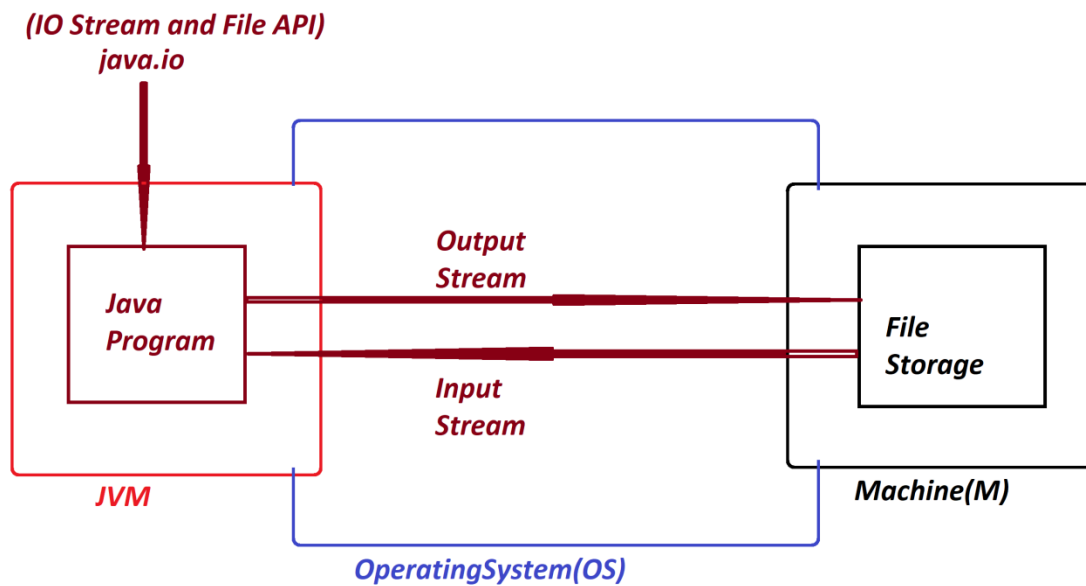
3.File Storage:

=>The smallest permanent storage of computer-system which is 'controlled and managed' by the OperatingSystem is known as File Storage.

=>when we want to establish communication b/w Java-Program and File Storage,the Java-Program must

be constructed using 'Classes and Interfaces' available from 'java.io' package, known as 'IO Stream and File API'

Diagram:



DisAdvantages of File Storage:

- (i) File Storage is not preferable for Large-Scale applications, because which cannot organize huge data.
- (ii) File Storage will lead to Data Redundancy, which means lead to replication of data.
- (iii) Data Sharing problems in File Storage.
- (iv) Data is not secure in File Storage.

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Note:

=> DisAdvantages of File Storage can be Overcomed using Database Storage.

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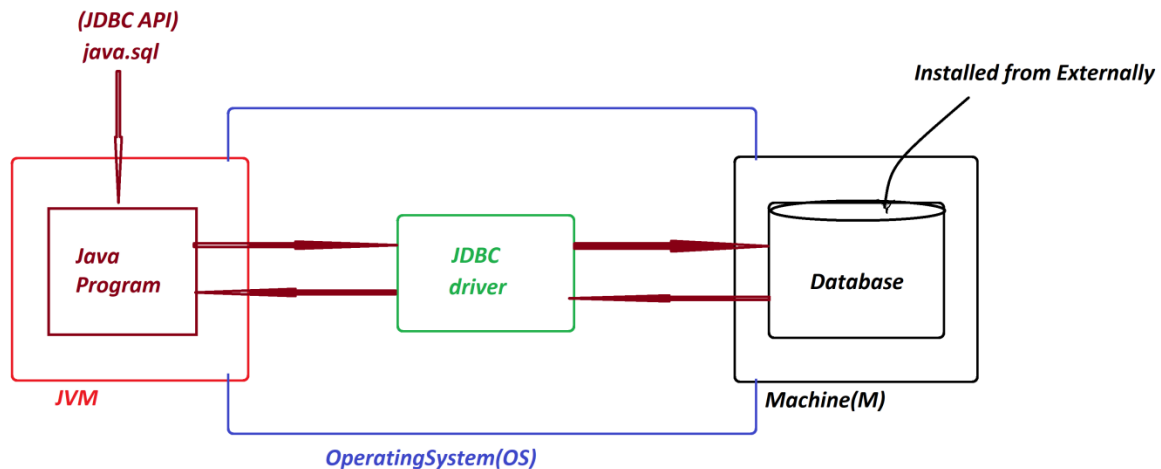
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#### 4.Database Storage:

=>The largest permanent storage of ComputerSystem which is installed from externally is known as Database Storage.

=>In the process of establishing communication b/w Java-Program and Database product,the Java Program must be constructed using 'classes and Interfaces' available from 'java.sql' package and must take the support of JDBC-Driver.

Diagram:



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faq:

define 'driver'?

=>The small s/w program part of OperatingSystem,which establish connection b/w two end-points for

communication is known as 'driver'

Ex:

Audio driver

Video driver

**Network driver**

**faq:**

**define JDBC driver?**

**=>The driver which establish connection b/w Java-Program and Database product for communication is**

**known as JDBC driver.(Java DataBase Connectivity Driver)**

**Types of JDBC drivers:**

**=>These JDBC drivers are categorized into four types:**

**1.JDBC-ODBC bridge driver(Type-1 driver)**

**2.Native API driver(Type-2 driver)**

**3.Network Protocol driver(Type-3 driver)**

**4.Thin driver(Type-4 driver)**

**Note:**

**=>In realtime application development,we use 'Thin driver'(Type-4 driver)**

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**faq:**

**define API?**

**=>API stands for 'Application Programming Interface' and which is a PlatForm to develop applications using Language or Technology or Framework.**

**=>Accoding to Java-Language,each package is one API.**

**=>The following are some important APIs:**

**java.lang - Language API**

**java.util - Utility API(Collection Framework API)**

**java.io - IO Stream and File API**

*java.net* - *Networking API*

*java.sql* - *JDBC API*

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