Properties class in Java

The **properties** object contains key and value pair both as a string. It is the subclass of Hashtable.

It can be used to get property value based on the property key. The Properties class provides methods to get data from properties file and store data into properties file. Moreover, it can be used to get properties of system.

**Advantage of properties file**

**Easy Maintenance:** If any information is changed from the properties file, you don't need to recompile the java class. It is mainly used to contain variable information i.e. to be changed.

Methods of Properties class

The commonly used methods of Properties class are given below.

|  |  |
| --- | --- |
| **Method** | **Description** |
| public void load(Reader r) | loads data from the Reader object. |
| public void load(InputStream is) | loads data from the InputStream object |
| public String getProperty(String key) | returns value based on the key. |
| public void setProperty(String key,String value) | sets the property in the properties object. |
| public void store(Writer w, String comment) | writers the properties in the writer object. |
| public void store(OutputStream os, String comment) | writes the properties in the OutputStream object. |
| storeToXML(OutputStream os, String comment) | writers the properties in the writer object for generating xml document. |
| public void storeToXML(Writer w, String comment, String encoding) | writers the properties in the writer object for generating xml document with specified encoding. |

Example of Properties class to get information from properties file

To get information from the properties file, create the properties file first.

**db.properties**

1. user=system
2. password=oracle

Now, lets create the java class to read the data from the properties file.

**Test.java**

1. **import** java.util.\*;
2. **import** java.io.\*;
3. **public** **class** Test {
4. **public** **static** **void** main(String[] args)**throws** Exception{
5. FileReader reader=**new** FileReader("db.properties");
7. Properties p=**new** Properties();
8. p.load(reader);
10. System.out.println(p.getProperty("user"));
11. System.out.println(p.getProperty("password"));
12. }
13. }

Output:system

oracle

Now if you change the value of the properties file, you don't need to compile the java class again. That means no maintenance problem.

Example of Properties class to get all the system properties

By System.getProperties() method we can get all the properties of system. Let's create the class that gets information from the system properties.

**Test.java**

1. **import** java.util.\*;
2. **import** java.io.\*;
3. **public** **class** Test {
4. **public** **static** **void** main(String[] args)**throws** Exception{
6. Properties p=System.getProperties();
7. Set set=p.entrySet();
9. Iterator itr=set.iterator();
10. **while**(itr.hasNext()){
11. Map.Entry entry=(Map.Entry)itr.next();
12. System.out.println(entry.getKey()+" = "+entry.getValue());
13. }
15. }
16. }

Output:

java.runtime.name = Java(TM) SE Runtime Environment

sun.boot.library.path = C:\Program Files\Java\jdk1.7.0\_01\jre\bin

java.vm.version = 21.1-b02

java.vm.vendor = Oracle Corporation

java.vendor.url = http://java.oracle.com/

path.separator = ;

java.vm.name = Java HotSpot(TM) Client VM

file.encoding.pkg = sun.io

user.country = US

user.script =

sun.java.launcher = SUN\_STANDARD

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Example of Properties class to create properties file

Now lets write the code to create the properties file.

**Test.java**

1. **import** java.util.\*;
2. **import** java.io.\*;
3. **public** **class** Test {
4. **public** **static** **void** main(String[] args)**throws** Exception{
6. Properties p=**new** Properties();
7. p.setProperty("name","Sonoo Jaiswal");
8. p.setProperty("email","sonoojaiswal@javatpoint.com");
10. p.store(**new** FileWriter("info.properties"),"Javatpoint Properties Example");
12. }
13. }

Let's see the generated properties file.

**info.properties**

1. #Javatpoint Properties Example
2. #Thu Oct 03 22:35:53 IST 2013
3. email=sonoojaiswal@javatpoint.com
4. name=Sonoo Jaiswal