**Jackson 2 – Convert Java Object to JSON and JSON String to Object**

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In this tutorial, we will learn to use [**Jackson 2**](http://wiki.fasterxml.com/JacksonRelease20) library to **convert JSON to java objects** – and **convert java object to JSON**.

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**1. Jackson 2 maven dependency**

To include Jackson 2 library in your project, include following dependency in pom.xml.

|  |
| --- |
| <dependency>      <groupId>com.fasterxml.jackson.core</groupId>      <artifactId>jackson-core</artifactId>      <version>2.6.4</version>  </dependency> |

You can find the downloadable jar files from [**Jackson site**](http://wiki.fasterxml.com/JacksonDownload).

**2. Convert Java object to JSON example**

Jackson is pretty much straight forward in converting between simple pojo objects. Typically it involves only two steps,

* Create instance of com.fasterxml.jackson.databind.ObjectMapper
* Use objectMapper.writeValueAsString() method to convert pojo to JSON

|  |
| --- |
| //Simple POJO  Employee emp = new Employee(1, "Lokesh Gupta", 34, "India");    //Object mapper instance  ObjectMapper mapper = new ObjectMapper();    //Convert POJO to JSON  String json = mapper.writeValueAsString(emp); |

**2.1. Java program to convert Java object to JSON**

|  |
| --- |
| package com.howtodoinjava.jackson2.example;    import java.io.IOException;    import com.fasterxml.jackson.core.JsonGenerationException;  import com.fasterxml.jackson.databind.JsonMappingException;  import com.fasterxml.jackson.databind.ObjectMapper;  import com.howtodoinjava.jackson2.example.pojo.Employee;    public class FromJavaPojoToJSON  {      public static void main(String[] args)      {          Employee emp = new Employee(1, "Lokesh Gupta", 34, "India");            ObjectMapper mapper = new ObjectMapper();          try          {              String json = mapper.writeValueAsString(emp);              System.out.println(json);                //Use pretty print for printing the output              String beutifulJson = mapper.writerWithDefaultPrettyPrinter().writeValueAsString(emp);              System.out.println(beutifulJson);            } catch (JsonGenerationException e) {              e.printStackTrace();          } catch (JsonMappingException e) {              e.printStackTrace();          } catch (IOException e) {              e.printStackTrace();          }      }  } |

Output:

{"id":1,"name":"Lokesh Gupta","age":34,"location":"India"}

{

"id" : 1,

"name" : "Lokesh Gupta",

"age" : 34,

"location" : "India"

}

Here POJO object used is:

|  |
| --- |
| package com.howtodoinjava.jackson2.example.pojo;    public class Employee  {      private Integer id;      private String name;      private Integer age;      private String location;        public Employee(Integer id, String name, Integer age, String location) {          super();          this.id = id;          this.name = name;          this.age = age;          this.location = location;      }        //Setters and Getters will be added here        @Override      public String toString() {          return "Employee [id=" + id + ", name=" + name + ", age=" + age                  + ", location=" + location + "]";      }  } |

**3. Convert JSON to Java object example**

Just like above example, conversion between JSON to POJO also involves only two steps,

* Create instance of com.fasterxml.jackson.databind.ObjectMapper
* Use objectMapper.readValue() method to convert JSON to POJO

e.g.

|  |
| --- |
| //JSON input  String json = "{\"id\":1,\"name\":\"Lokesh Gupta\",\"age\":34,\"location\":\"India\"}";    //Object mapper instance  ObjectMapper mapper = new ObjectMapper();    //Convert JSON to POJO  Employee emp = mapper.readValue(json, Employee.class); |

We can read json file in java and pass to jackson library as well.

**3.1. Java program to convery JSON to Java object**

|  |
| --- |
| package com.howtodoinjava.jackson2.example;    import java.io.IOException;    import com.fasterxml.jackson.core.JsonGenerationException;  import com.fasterxml.jackson.databind.JsonMappingException;  import com.fasterxml.jackson.databind.ObjectMapper;  import com.howtodoinjava.jackson2.example.pojo.Employee;    public class FromJSONToPOJO {        public static void main(String[] args) {          String json = "{\"id\":1,\"name\":\"Lokesh Gupta\",\"age\":34,\"location\":\"India\"}";            ObjectMapper mapper = new ObjectMapper();          try          {              Employee emp = mapper.readValue(json, Employee.class);                System.out.println(emp);          }          catch (JsonGenerationException e)          {              e.printStackTrace();          } catch (JsonMappingException e) {              e.printStackTrace();          } catch (IOException e) {              e.printStackTrace();          }      }    } |

Program Output.

|  |
| --- |
| Employee [id=1, name=Lokesh Gupta, age=34, location=India] |

Please do not forget to add a default connstructor in POJO class, otherwise you will get this error:

|  |
| --- |
| com.fasterxml.jackson.databind.JsonMappingException: No suitable constructor found for type [simple type, class com.howtodoinjava.jackson2.example.pojo.Employee]: can not instantiate from JSON object (missing default constructor or creator, or perhaps need to add/enable type information?)   at [Source: {"id":1,"name":"Lokesh Gupta","age":34,"location":"India"}; line: 1, column: 2]      at com.fasterxml.jackson.databind.JsonMappingException.from(JsonMappingException.java:148)      at com.fasterxml.jackson.databind.deser.BeanDeserializerBase.deserializeFromObjectUsingNonDefault(BeanDeserializerBase.java:1106)      at com.fasterxml.jackson.databind.deser.BeanDeserializer.deserializeFromObject(BeanDeserializer.java:296)      at com.fasterxml.jackson.databind.deser.BeanDeserializer.deserialize(BeanDeserializer.java:133)      at com.fasterxml.jackson.databind.ObjectMapper.\_readMapAndClose(ObjectMapper.java:3736)      at com.fasterxml.jackson.databind.ObjectMapper.readValue(ObjectMapper.java:2726)      at com.howtodoinjava.jackson2.example.FromJSONToPOJO.main(FromJSONToPOJO.java:18) |