

Understanding JSON.

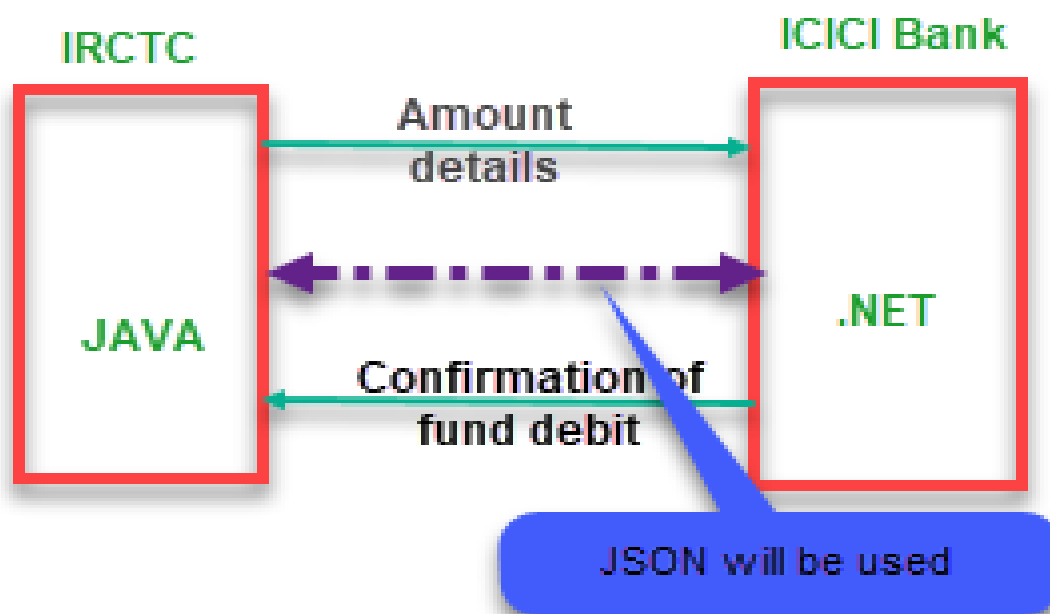
We have lot of different ways to store / transfer a data.

- Database
- Excel sheet
- XML
- JSON [*JSON stands for JavaScript Object Notation*]

JSON is trending these days due to its easiness and compatibility with the java technology.

JSON is same for all other programming language and operating systems. Php or .net or java every language uses json.

This is easiest way to transfer data between two applications coded in different languages.



Remember:

- In JSON, *keys* must be strings, written with double quotes:
- Data is in name/value pairs.
- The file type for JSON files is “.json”. – this happens on the fly we are not going to create json file in spring boot.
- The MIME type for JSON text is "application/json".

Some examples of JSON

1. Hello –
 - a. It is just single string.
2. ["hi","hello","good morning"]
 - a. This is an array in json
3. {"age": 23,"location": "pune"}
 - a. This is a student class having age and location variables.
4. Below example is nested json

```
{
  "widget": {
    "debug": "on",
    "window": {
      "title": "Sample Konfabulator Widget",
      "name": "main_window",
      "width": 500,
      "height": 500
    },
    "image": {
      "src": "Images/Sun.png",
      "name": "sun1",
      "hOffset": 250,
      "vOffset": 250,
      "alignment": "center"
    },
    "text": {
      "data": "Click Here",
      "size": 36,
      "style": "bold",
      "name": "text1",
      "hOffset": 250,
      "vOffset": 100,
      "alignment": "center",
```

```
        "onMouseUp": "sun1.opacity = (sun1.opacity / 100) * 90;"
    }
}}
```

The same text expressed as XML:

```
<widget>
  <debug>on</debug>
  <window title="Sample Konfabulator Widget">
    <name>main_window</name>
    <width>500</width>
    <height>500</height>
  </window>
  <image src="Images/Sun.png" name="sun1">
    <hOffset>250</hOffset>
    <vOffset>250</vOffset>
    <alignment>center</alignment>
  </image>
  <text data="Click Here" size="36" style="bold">
    <name>text1</name>
    <hOffset>250</hOffset>
    <vOffset>100</vOffset>
    <alignment>center</alignment>
    <onMouseUp>
      sun1.opacity = (sun1.opacity / 100) * 90;
    </onMouseUp>
  </text>
</widget>
```

How java will be mapped with json

Student.java

```
package com.javabykiran.controller;

public class Student {
    public Student() {
    }

    public Student(int age, String location) {
        super();
        this.age = age;
        this.location = location;
    }

    int age;
    String location;

    public int getAge() {
        return age;
    }

    public void setAge(int age) {
        this.age = age;
    }

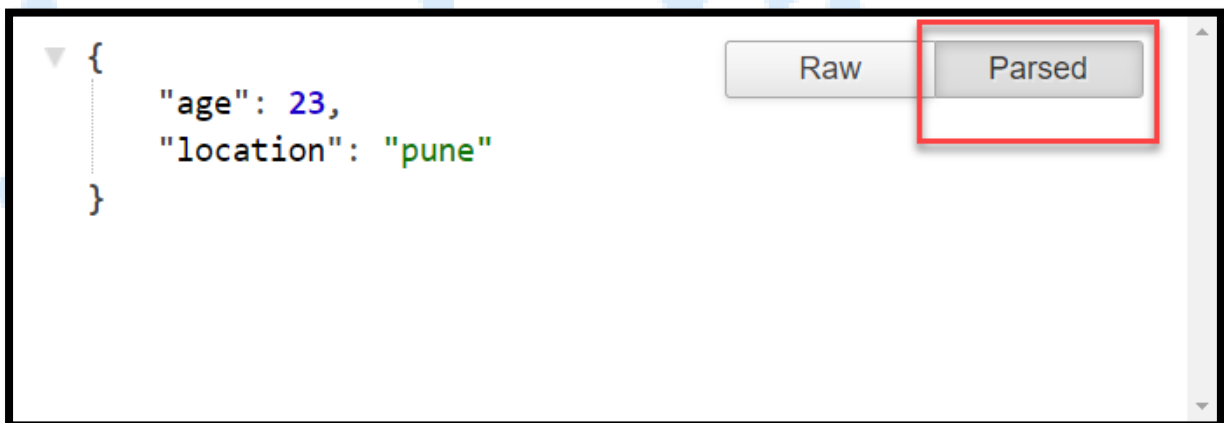
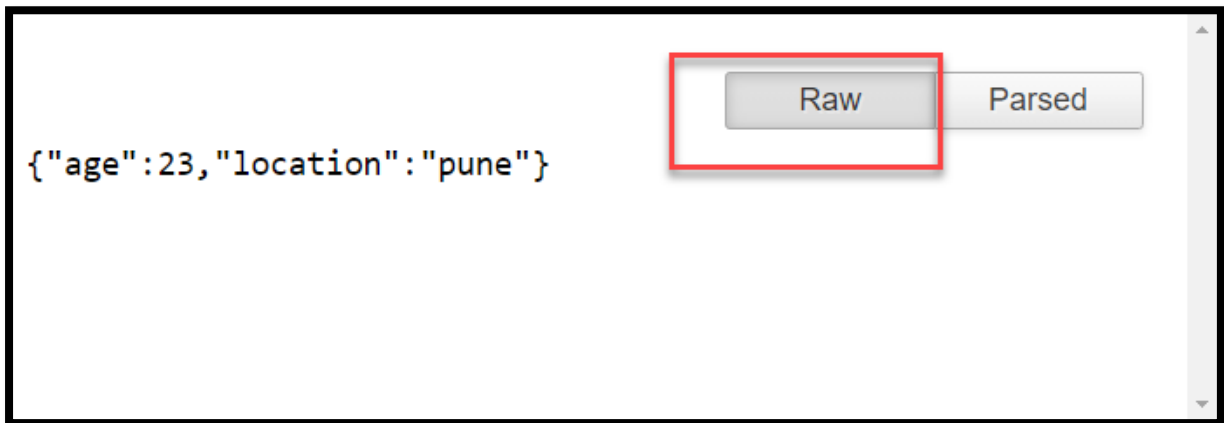
    public String getLocation() {
        return location;
    }

    public void setLocation(String location) {
        this.location = location;
    }
}
```

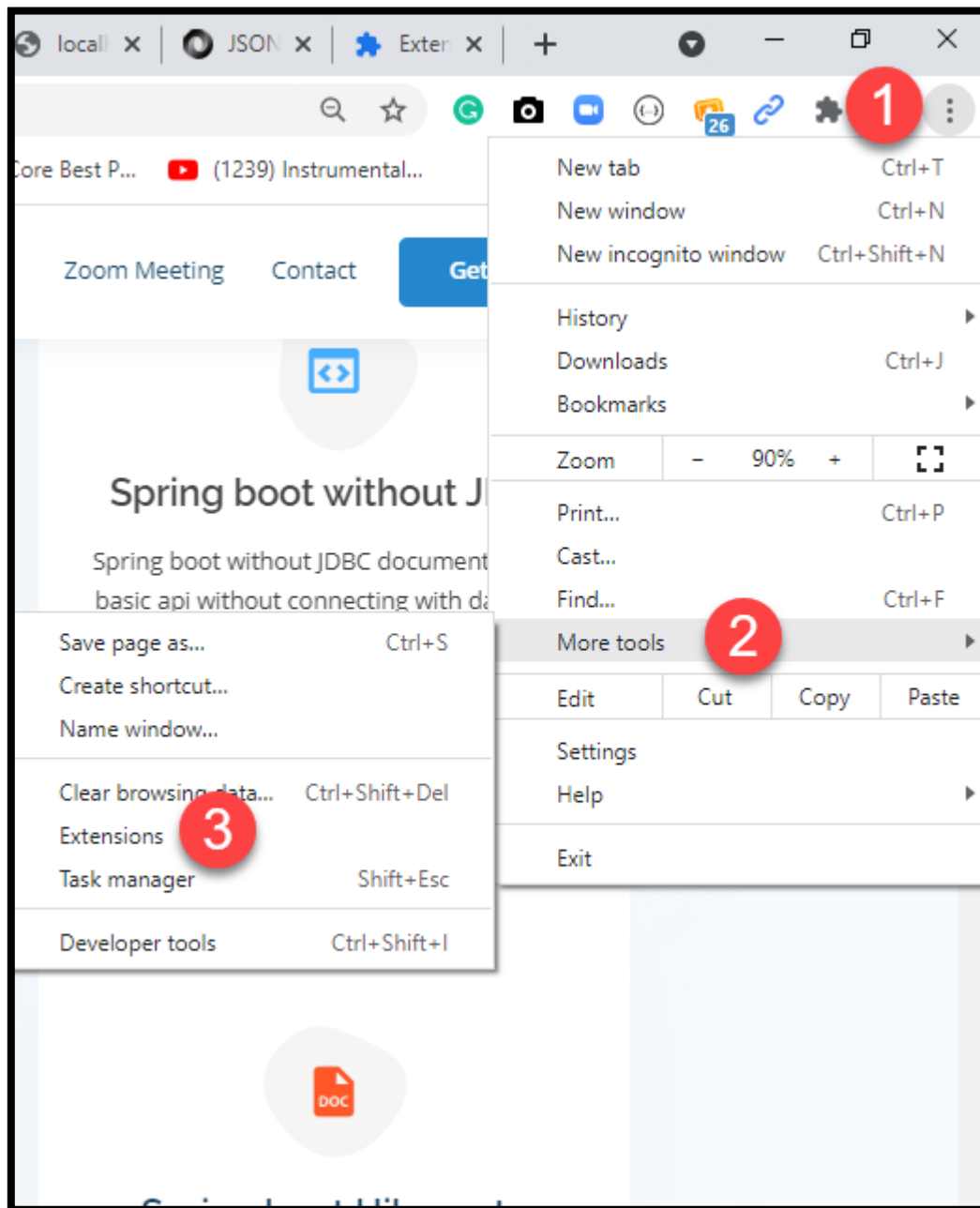
This will generate JSON.

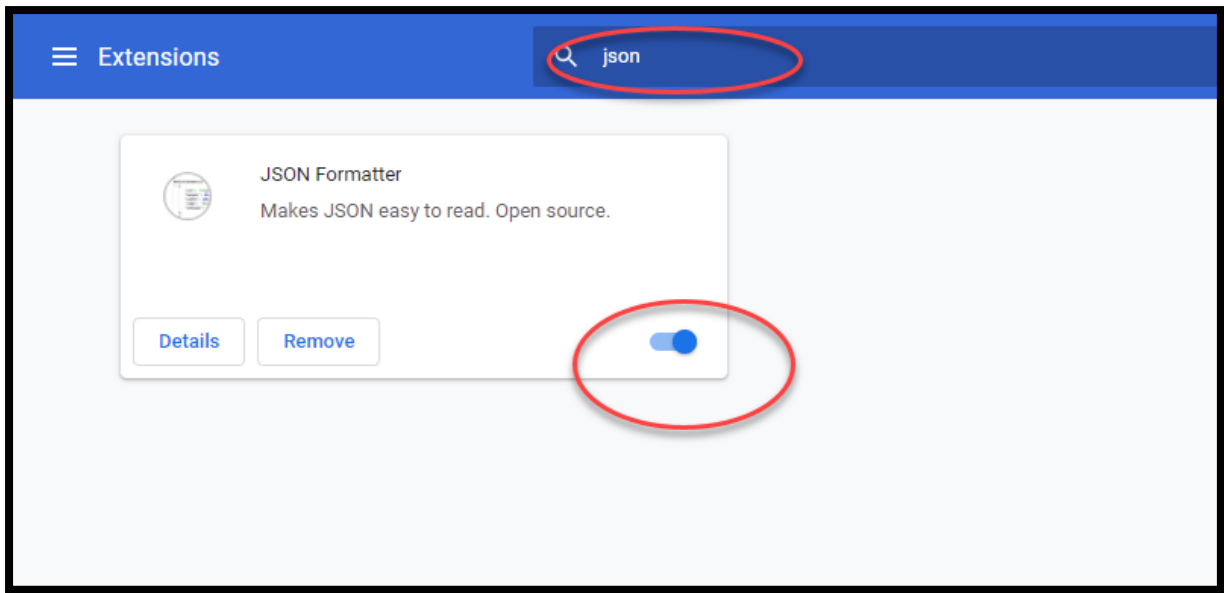
```
{
  "age": 23,
  "location": "pune"
}
```

How to see formatted json on chrome browser



To see these both options we need to add chrome. Go to extensions in chrome and add this extension to chrome browser.





Homework:

Refer official website of json for more examples.

<https://json.org/example.html>