// 31139-Durvesh-DBMSLB7-writeup

Assignment No. B7

Title:- Study & demonstrate the use of encoding & decoding JSON objects using Java/Perl/Python/Ruby.

Problem statement:- Study & demonstrate the use of encoding & decoding JSON objects using Java.

Objectives:- To understand & implement encoding & decoding of JSON objects.

Outcomes:- Implement ending & decoding of JSON objects

S/W & H/W Requirements:- Eclipse, Java, 64-bit OS, 1 GB RAM

Theory:-

JSON extension is bundled with PHP by default from version 5.2.0 so there is no need of any special environment.

JSON Functions:-

1. json_encode:- It returns the JSON representation of a value.
2. json_decode:- It decodes a json string
3. json_last_error - It returns the last error occured.

Encoding:-

Encoding a JSON object in a Java program is possible using JSONObject that is a subclass of java.util.HashMap. By default no order is set.

To set a strict element's ordering, the JSONValue.toString() method is used. Moreover, the JSON.simple is used for mapping values from the left-hand side to the right-hand side at the time of decoding or parsing & the reverse at the time of encoding.

e.g.

```
JSONObject OI = new JSONObject();
OI.put("name", "Alex");
OI.put("roll", new Integer(12));
```

Decoding :-

There is a simple program showing decoding of JSON in the Java program.

```
import org.json.simple.JSONObject;
import org.json.simple.JSONValue;

public class JSONDecodeExample {
    public static void main(String[] args) {
        String s = "{"name":"Alex","marks":600}";
        Object OI = JSONValue.parse(s);
        JSONObject jsonObj = (JSONObject) OI;
        String name = (String) jsonObj.get("name");
        double marks = (Double) jsonObj.get("marks");

        System.out.println(name + " - " + marks);
    }
}
```

Conclusion :- We have successfully Implemented encoding & decoding of JSON objects.