Assignment B7

Date:

Title: Encoding and decoding of JSON objects

Problem Statement:
Study and demonstrate the use of encoding and decoding JSON objects using Java/Python.

Objectives:
To understand and implement encoding and decoding of JSON objects.

Outcomes:
Students will be able to encode & decode JSON objects.

Requirements:
Eclipse, Java/Python, computer

Theory:
JSON stands for JavaScript Object Notation. It is a lightweight format for storing and transporting data. JSON is often used when data is being sent from servers to a web page.

JSON is easy for humans to read and write. It is easy for machines to parse and generate. It is based on

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a subset of JavaScript Programming Language Standard ECMA-262 3rd Edition - December 1999. These properties of JSON make it ideal of data interchange language.

JSON is built on 2 structures:

- A collection of name/value pairs. In various languages, this is realized as an object, record, struct, dictionary, hash table, keyed list, or associative array.
- An ordered list of values. In most languages, this is realized as an array, vector, list or sequence.

Encoding a JSON object in Java:

- In Java, encoding a JSON object involves using JSONObject class.

Syntax:

```
JSONObject object_name = new JSONObject();
object_name.put (<key>,<value>);
```

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Decoding a JSONObject in Java:
To decode JSON object in Java, we can use get() of JSONObject class to retrieve value given key.

Syntax:

String value = object.get(<key>);

Alternatively, we can use toMap() to get a map value consisting of key and value.

Conclusion:
Thus, we have successfully encoded and decode a JSON object.