



SNS COLLEGE OF ENGINEERING



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

JSON



JSON



- **JSON is a text-based data format that is used to store and transfer data. For example,**
- **// JSON syntax**
- **{**
- **"name": "John",**
- **"age": 22,**
- **"gender": "male",**
- **}**
- **In JSON, the data are in key/value pairs separated by a comma ,.**



OBJECT PROPERTIES



- JSON, which stands for JavaScript Object Notation, is a lightweight data-interchange format that is easy for humans to read and write, and easy for machines to parse and generate.
- JSON represents data in key-value pairs. Each key is a string enclosed in double quotes, followed by a colon, and then its corresponding value. Values can be strings, numbers, arrays, objects, booleans, or nul



JSON OBJECT

```
• {  
  "employees": [  
    {"firstName": "John", "lastName": "Doe"},  
    {"firstName": "Anna", "lastName": "Smith"},  
    {"firstName": "Peter", "lastName": "Jones"}  
  ]  
}
```



ACCESSING JSON DATA

- access JSON data using the dot notation. For example,
- // JSON object
- const data = {
- "name": "John",
- "age": 22,
- "hobby": {
- "reading" : true,
- "gaming" : false,
- "sport" : "football"
- },
- "class" : ["JavaScript", "HTML", "CSS"]
- }



ACCESSING JSON DATA

Access JSON data using the dot notation. For example,
accessing JSON object

- `console.log(data.name); // John`
- `console.log(data.hobby); // { gaming: false, reading: true, sport: "football"}`
- `console.log(data.hobby.sport); // football`
- `console.log(data.class[1]); // HTML`



Converting JSON TEXT TO JS



- A common use of JSON is to read data from a web server, and display the data in a web page use the JavaScript built-in function `JSON.parse()` to convert the string into a JavaScript object:
`const obj = JSON.parse(text);`



EXAMPLE

- `<script>`
- `let text = '{"employees":[' +`
- `'{"firstName":"John","lastName":"Doe" },' +`
- `'{"firstName":"Anna","lastName":"Smith" },' +`
- `'{"firstName":"Peter","lastName":"Jones" }]]';`
- `const obj = JSON.parse(text);`
- `document.getElementById("demo").innerHTML =`
- `obj.employees[1].firstName + " " + obj.employees[1].lastName;`
- `</script>`