📜 Internship Report

🖼️ **Date: 24/07/2025**

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📌 **Day 4 | Week 5**

🏷️ **Topic: JSON and Local Storage**

🗓️ **Internship at: ProSensia**

✅ What I Learned

🔷 JSON (JavaScript Object Notation)

- JSON is a data format used to store and exchange information between client and server.

- Easy to read/write, similar to JavaScript object syntax.

- Stores data as key-value pairs.

Example:

json

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```json
{
  "name": "Hamza",
  "age": 22,
  "intern": true
}
```

🔷 JSON Methods

- JSON.stringify() → Converts JS object to a JSON string.

- JSON.parse() → Converts JSON string back to JS object.

Code Example:

js

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```js
const data = { city: "Lahore", country: "Pakistan" };

const jsonData = JSON.stringify(data);

const parsedData = JSON.parse(jsonData);
```

🔷 Local Storage

- Built-in browser storage that stores data in key-value format.

- Data persists even after page reload or browser close.

- Max capacity: ~5MB.

Methods:

- localStorage.setItem("key", "value")

- localStorage.getItem("key")

- localStorage.removeItem("key")

- localStorage.clear()

Code Example:

js

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```js
localStorage.setItem("theme", "dark");

const theme = localStorage.getItem("theme");
```

🌸 Key Takeaways

- JSON helps format data for APIs and local storage.

- Local Storage is ideal for saving user data on the frontend.

- Useful for creating interactive and persistent web apps without backend support.