🌱 **Digital Excellence Program – Class Plan** **JavaScript Objects**

⏱ **Time & Activity Breakdown**

| **Time Slot** | **Activity** | **Description** |
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| First 5 minutes | Warm-up & Reflection | Kick off with a fun prompt: **"If you could describe yourself as an object in code, what properties would you have?"**  Relate this to how objects help describe entities with properties and behavior. |
| 40 minutes | Core Concept Explanation – I | **Topic: Object Basics & Creation**  Subtopics:  ▫ What is an object?  ▫ Object literals and constructors  ▫ Dot vs bracket notation  ▫ Nested objects and accessing deep properties |
| 10 minutes | Interactive Activity | Students create a simple person object with at least 3 properties and 1 nested object. They then write expressions to access and update properties using both notations.  **Example**:  person.hobbies[0], person["name"] = "Aisha" |
| 45 minutes | Core Concept Explanation – II | **Topic: Methods & Object Utilities**  Subtopics:  ▫ Adding methods to objects  ▫ The this keyword  ▫ Object.keys(), Object.values(), Object.entries()  ▫ Shallow vs deep copy (Object.assign, spread operator)  ▫ Object references and mutation |
| 15–30 minutes | Doubt Solving Session – I | Students work through 3–5 mini tasks:  – Write a method that greets using object data  – Create a clone of an object and modify it  – Use Object.keys() on a nested structure  Mentors help troubleshoot syntax issues, explain this context, and debug property access problems. |
| 5 minutes | Class Wrap-up | Summarize key takeaways:  – Objects model real-world data  – Bracket vs dot notation  – Methods and this  – Utility functions and immutability  Ask a few students to share how they used objects in a recent project or idea. |

📘 **References & Notes**

* [MDN JavaScript Objects](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Working_with_Objects)
* [JS Visualizer – Object Mutation & Reference](https://www.jsv9000.app/)

✅ **5 Checklist Questions to Assess Understanding**

1. What is the difference between dot and bracket notation in objects?
2. How does the this keyword behave inside object methods?
3. What is the result of modifying an object after cloning it with Object.assign()?
4. What does Object.keys() return and when is it useful?
5. Why can object references cause bugs in large programs?