**🔁 1. Python Revision**

You started by revising core Python concepts — variables, data structures, functions, and OOP — to build a strong foundation for your upcoming projects.

**📊 2–3. Streamlit Dashboard (Indian Population Dashboard)**

You explored **Streamlit**, a powerful Python library for building web apps.

* Created an interactive **India Population Dashboard** to visualize population data.
* Later refined the dashboard by improving layout, adding filters, and enhancing visual elements (charts, maps, etc.).

**🌐 4. JavaScript Revision**

You revised JavaScript basics including DOM manipulation, events, functions, arrays, and basic async handling — useful for frontend interactions in future full-stack projects.

**⚛️ 5. Learning React**

You began learning **React.js** — understanding components, props, hooks (like useState, useEffect), and JSX — laying the groundwork for building modern, reactive UIs.

**✅ 6–7. Mini Project – ToDos List**

You implemented a **ToDo List** application using React.

* Built features like adding, deleting, and marking tasks as complete.
* Practiced **state management**, conditional rendering, and basic styling.

**📚 8. Exploring ML Algorithms**

You explored key ML algorithms like:

* **Classification & Regression** techniques
* Algorithms like Decision Trees, SVM, KNN, etc.
* Understood model evaluation metrics and the general ML pipeline.

**🦺 9–10. Vest & Helmet Detection Project**

You developed a **YOLOv8-based object detection model** for detecting safety vests and helmets:

* Worked on **data preparation**, training, and inference.
* Built a custom script for **real-time detection** using camera/video/image.
* Dealt with model path errors, reflective vest issues, and model deployment.

**🌐 11. REST APIs**

You learned about **RESTful APIs**:

* Understood HTTP methods (GET, POST, PUT, DELETE).
* Created a basic API using **Python’s FastAPI or Flask**.
* Retrieved data from external APIs (e.g., weather data project).