Day 6 - Deployment Preparation and Staging Environment Setup

Objective:

To successfully deploy the project to a staging environment and ensure it is thoroughly tested and ready for the production phase.

Key Learning Outcomes:

1. Understanding the process of setting up a staging environment.
2. Configuring environment variables for secure and smooth deployment.
3. Testing the staging environment to ensure all functionalities are working as expected.
4. Updating documentation to reflect the deployment process and configuration details.

Professional Environment Types:

1. **Development Environment:** Used for coding and initial testing by developers.
2. **Staging Environment:** A replica of production for final testing before deployment.
3. **Production Environment:** The live environment accessible to end users

1. Deployment Strategy Planning

- Ensured the hosting platform supports the project's tech stack.
- Decided on the deployment type: continuous deployment or manual deployment.

2. Environment Variable Configuration

- Secured sensitive data such as API keys, database credentials, and tokens using `.env` files.
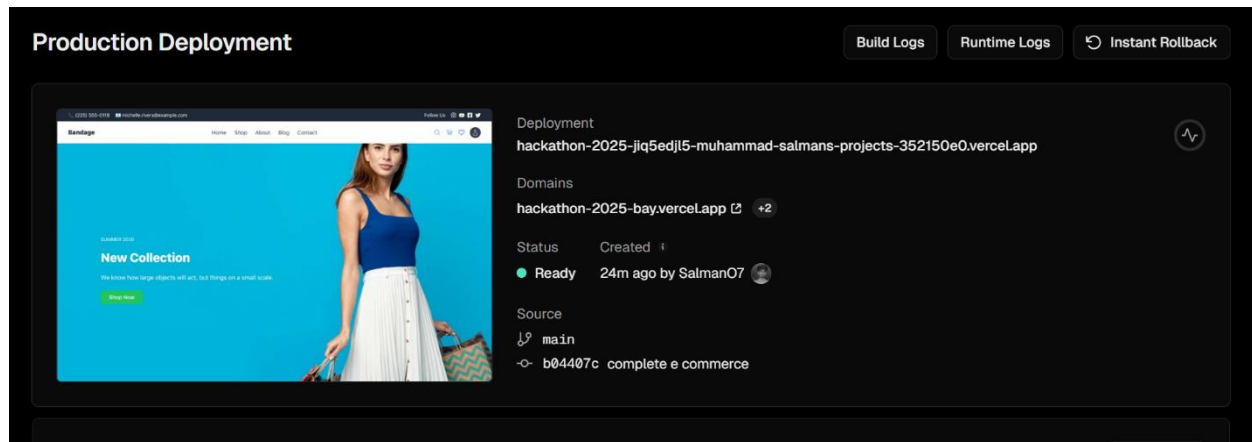- Set up variables for both staging and production environments.

```
.env.local
1   NEXT_PUBLIC_SANITY_PROJECT_ID="nkb8dd2w"
2   NEXT_PUBLIC_SANITY_DATASET="production"
3   NEXT_PUBLIC_SANITY_PROJECT_TOKEN="skg4UA_OktRvneZJMWb6qfnq8eU4Om2P9esmV/BW1TsQPbKv4RvLOK0vpTV9yDDw5po4cVy4SOoIyl2:
4   NEXT_PUBLIC_CLERK_PUBLISHABLE_KEY=
5   CLERK_SECRET_KEY=
```

3. Staging Environment Setup

- Configured the staging server to replicate the production environment, ensuring consistent performance and behavior.

4. Staging Environment Testing

- Verified all features and functionality, including UI/UX, API integrations, and database operations.
- Tested for bugs and resolved any issues found during this stage.

5. Documentation Updates

- Documented deployment steps, configuration changes, and test results for future reference and team collaboration.

Successful Deployment Highlights:

- **Hosting Platform:**Vercel.
- **Environment Variables:** Configured and working seamlessly.
- **Staging Environment Status:** All tests passed with no critical issues.
- **Documentation:** Fully updated to reflect the deployment process and configurations.

Regards: Muhammad Salman
Slot: Sunday 2-5
Teacher: Ali Jawwad