OPT Portal Project Week 4 Deliverable:

Week 4 (September 2 - September 6)
Stage 4: Finalization and Launch
Objective: Finalize the application with security enhancements, user feedback integration, and prepare for launch.

<mark>Backend Team:</mark>

September 2 (Monday):

- **Task:**
    - Implement secure communication using HTTPS.
    - Ensure secure access to GCP resources using IAM roles and permissions.
    - Configure GCP Cloud Armor for DDoS protection and traffic filtering.

September 3 (Tuesday):

- **Task:**
    - Conduct User Acceptance Testing (UAT) with actual users (Admin, Students, OPT Coordinators).
    - Identify and fix any issues related to user authentication, document management, and volunteer application processes.

September 4 (Wednesday):

- **Task:**
    - Optimize application performance for speed and efficiency on GCP infrastructure.
    - Implement GCP Cloud CDN for faster content delivery.

September 5 (Thursday):

- **Task:**
    - Deploy the optimized application on GCP using Google Kubernetes Engine (GKE) with auto-scaling enabled.
    - Set up monitoring using Google Cloud Monitoring to track application performance.

September 6 (Friday):

- **Task:**
    - Monitor application performance post-launch using GCP's Monitoring and Logging services.
    - Address any issues that arise after launch promptly.

Frontend Team:

September 2 (Monday):

- **Task:**
  - Implement data encryption for sensitive information using HTTPS.
  - Ensure secure storage of sensitive data in the frontend (e.g., using session storage or local storage securely).

September 3 (Tuesday):

- **Task:**
  - Gather feedback on usability, functionality, and performance from UAT.
  - Identify areas where the user experience can be improved.

September 4 (Wednesday):

- **Task:**
  - Implement caching strategies for frequently accessed data using GCP Memorystore (Redis).
  - Optimize frontend code for performance, including lazy loading and code splitting.

September 5 (Thursday):

- **Task:**
  - Provide comprehensive documentation and training materials for all user types (Admin, Student, OPT Coordinator).
  - Ensure that the frontend is deployed seamlessly with the backend, using GCP Cloud Storage and Cloud CDN for static assets.

September 6 (Friday):

- **Task:**
  - Collect user feedback for further improvements.
  - Ensure that any bugs or issues reported by users are addressed.

UI/UX Team:

September 2 (Monday):

- **Task:**

- ○ Secure API endpoints with authentication and authorization mechanisms.
- ○ Ensure that all frontend-backend communications are secured via HTTPS.

September 3 (Tuesday):

- ● **Task:**
  - ○ Address any issues or improvements suggested by users during UAT.
  - ○ Iterate on designs based on feedback to ensure a user-friendly experience.

September 4 (Wednesday):

- ● **Task:**
  - ○ Optimize database queries and API responses for faster load times.
  - ○ Ensure that the user interface is responsive and performs well across devices.

September 5 (Thursday):

- ● **Task:**
  - ○ Officially launch the application and monitor its performance using Google Cloud Operations Suite.
  - ○ Ensure that the user interface is intuitive and aligns with user expectations.

September 6 (Friday):

- ● **Task:**
  - ○ Provide post-launch support and updates as needed.
  - ○ Monitor user interactions and make any necessary adjustments to improve user experience.