

# CPSC 304 Project Cover Page

**Milestone #:** \_\_3\_\_

**Date:** \_\_2025-03-12\_\_

**Group Number:** \_\_77\_\_

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

### **Summary of Project (2-3 sentences):**

Accelera is a platform that connects companies with investors, mentors, accelerators, and other vital resources in order to promote relationships within the startup ecosystem. The program simplifies important procedures including resource sharing, networking events, accelerator applications, mentoring access, and startup funding. The goal is to provide an effective way to handle the many interactions, encouraging growth of startups and collaboration among entrepreneurs.

## Project Timeline & Task Breakdown

**Tools & Technologies:** Next.js, Supabase, Radix UI (Shadcn), Tailwind CSS, SQL

**Work Division:** Each team member works on features from both frontend and backend (end-to-end) for specific modules.

1. Architecture/Technology & Setup
- a. Goal: Define the structure of the project, set up the database schema, and make sure all dependencies are configured

b. Database & API Design

i. Design & finalize database schema (all members)

ii. Define SQL queries for chosen queries (split equally)

c. Setting Up (Collaborative)

i. Set up Next.js project

ii. Configure Supabase database

iii. Install all dependencies (Tailwind CSS, Radix UI)

iv. Set up frontend structure
2. Backend Development + Query Implementation
- a. Goal: Implement required SQL queries, backend logic, API endpoints, and interactions in database

### Backend Tasks

Task ID	Task Description	Assigned Members	Deadline	Dependencies / Notes
B1	<b>Project Setup (Backend):</b> Initialize the Next.js API project, set up folder structure, configure environment variables, and install necessary dependencies.	All Members	3/14/2025	Must be completed before any endpoint implementation.
B2	<b>User Authentication Endpoints:</b> Develop endpoints for registration, login, and user profile management (POST /users/register, POST /users/login, GET/PUT/DELETE /users/:userId).	All Members	3/16/2025	Core functionality; ensure secure password storage.

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<b>B3</b>	<b>User Profile &amp; Management:</b> Create endpoints to update user details and delete accounts if needed.	All Members	3/16/2025	Tied to authentication endpoints (B2).
<b>B4</b>	<b>Startup Endpoints (CRUD):</b> Implement endpoints for creating, reading, updating, and deleting startups (POST, GET, PUT, DELETE /startups).	Member 1	3/18/2025	Depends on B1 and shared authentication middleware.
<b>B5</b>	<b>ManagedBy Endpoints:</b> Develop endpoints for assigning users to startups with specific roles (POST, PUT, DELETE /startups/:startupId/assign/:userId).	Member 1	3/18/2025	Integrates with startup endpoints (B4).
<b>B6</b>	<b>Investor Endpoints:</b> Build endpoints for retrieving and updating investor-specific information (GET/PUT /investors/:userId and GET /investors).	Member 2	3/20/2025	Ensure these endpoints integrate with the User table from B2.
<b>B7</b>	<b>Funding Round Endpoints:</b> Create CRUD endpoints for funding rounds (POST, GET, PUT, DELETE /startups/:startupId/funding-rounds).	Member 2	3/20/2025	Must tie in with both Startup (B4) and Investor endpoints (B6).
<b>B8</b>	<b>Accelerator Endpoints:</b> Develop endpoints for managing accelerators and startup applications (POST, GET, PUT, DELETE /accelerators and /accelerators/:acceleratorId/applications).	Member 2	3/22/2025	Coordination with investor-related endpoints is beneficial.
<b>B9</b>	<b>Mentor Endpoints:</b> Implement endpoints to manage mentor profiles (GET, PUT /mentors/:userId and GET /mentors).	Member 3	3/24/2025	Requires one-to-one relation with startups; ensure integration with User.
<b>B10</b>	<b>Job Posting Endpoints:</b> Create endpoints for job postings (CRUD operations on /job-postings).	Member 3	3/24/2025	Must be linked to the corresponding startup; relies on B4.

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<b>B11</b>	<b>Resource &amp; Access Endpoints:</b> Develop endpoints for creating and managing resources (CRUD on /resources) and logging accesses (POST, GET /resources/:resourceId/access).	Member 3	3/26/2025	Ensure data consistency when linking resources to startups.
<b>B12</b>	<b>Event Endpoints:</b> Build endpoints for event management (CRUD operations on /events) and event attendance (POST, GET, DELETE /events/:eventId/attend).	Member 3	3/26/2025	Test relationships between events and startups (via Attends).
<b>B13</b>	<b>Integration Testing (Backend):</b> Test all API endpoints using tools like Postman to validate request/response payloads, error handling, and security.	All Members	3/28/2025	Conduct joint sessions to verify endpoint interdependencies .
<b>B14</b>	<b>API Documentation:</b> Write and update documentation for all backend endpoints (using Swagger/OpenAPI or similar).	All Members	3/28/2025	Documentation should reflect current API design and be updated continuously.

## Frontend Development

b. Goal: Develop GUI and connect it to the backend API

### Frontend Tasks

Task ID	Task Description	Assigned Members	Deadline	Dependencies / Notes
<b>F1</b>	<b>Project Setup (Frontend):</b> Initialize the Next.js project for the UI, configure routing, and set up the basic file structure.	All Members	3/14/2025	Must align with backend setup (B1) for API integration.
<b>F2</b>	<b>Global Layout &amp; Navigation:</b> Design and implement a consistent header, footer, and navigation bar across the application.	All Members	3/16/2025	Provides the UI framework for all subsequent pages.

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<b>F3</b>	<b>Authentication UI:</b> Build pages for user registration, login, and profile management. Integrate these with the authentication endpoints (B2, B3).	All Members	3/16/2025	Ensure secure handling of user credentials and tokens.
<b>F4</b>	<b>Startup UI Components:</b> Develop pages for creating, viewing, updating, and deleting startups. Include forms for ManagedBy assignments.	Member 1	3/18/2025	Connect with startup endpoints (B4, B5); design responsive forms and list views.
<b>F5</b>	<b>Investor &amp; Funding Round UI:</b> Create pages to display investor profiles and manage funding rounds. Include functionality for CRUD operations and status updates.	Member 2	3/20/2025	UI should integrate with investor and funding endpoints (B6, B7).
<b>F6</b>	<b>Accelerator Application UI:</b> Develop interfaces for viewing accelerator information and submitting startup applications.	Member 2	3/22/2025	Work in conjunction with accelerator endpoints (B8).
<b>F7</b>	<b>Mentor, Job Posting, Resource &amp; Event UI:</b> Design pages to manage mentor profiles, job postings, resources, and event registrations.	Member 3	3/24/2025	Each page should have intuitive forms and list views; ensure data consistency with endpoints (B9, B10, B11, B12).
<b>F8</b>	<b>API Integration (Frontend):</b> Use fetch/Axios to integrate UI components with the corresponding backend endpoints; handle loading states and errors.	All Members	3/26/2025	Requires all backend endpoints (B2–B12) to be functional and tested.
<b>F9</b>	<b>UI Testing &amp; Debugging:</b> Conduct comprehensive testing of all UI components to ensure responsiveness, usability, and proper error handling.	All Members	3/28/2025	Perform both unit and integration tests; coordinate with backend testing (B13).

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<b>F10</b>	<b>UI Polishing &amp; Documentation:</b> Finalize the UI design, ensure mobile responsiveness, and update user documentation or guides.	All Members	4/1/2025	Final step before project submission; review feedback and document design decisions.
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## Potential Challenges

Challenge	How to Resolve
Merge Conflicts and Version Control	<ul style="list-style-type: none"><li>- Frequently use git branches and pull request to avoid overwriting or losing progress</li><li>- Resolve merge conflicts in individual branches rather than the main branch</li><li>- Have a project master to handle merging of branches</li></ul>
Inconsistent design throughout the frontend	<ul style="list-style-type: none"><li>- Before starting to develop, agree on specific font size, font style, spacing, etc</li><li>- Come up with or use a unified theme and UI component library</li></ul>
Deadlines	<ul style="list-style-type: none"><li>- Try to support each other even if it is not apart of our own task</li><li>- Stop procrastinating</li><li>- Follow the timetable created above</li></ul>