

TECHNOLOGY STUDENT ASSOCIATION WORK LOG

Date	Task	Time Involved	Team member responsible (initials)	Comments
10/13	Team kickoff — project scoping and concept	1 hr	C.B., O.V., A.N., I.B., S.J.	All members met to define Port Laken as a fictional civic portal inspired by Port Angeles, WA. Agreed on 'Community First' theme and core pages needed
10/13	Figma wireframes — site map and layout	2 hrs	C.B., O.V., A.N., I.B., S.J.	Mapped out full site architecture in Figma: Home, Resource Directory, Maps, Events, Departments, Council, Alerts, Auth flows. Sketched hero layout and nav structure
10/13	Figma — design system and color palette	1 hr	C.B., O.V., A.N., I.B., S.J.	Defined Port Laken design system in Figma: Playfair Display for headings, Nunito for body, port-navy / port-slate / port-sky color tokens, card and button components
10/14	Figma — key page high-fidelity mockups	2 hrs	C.B., O.V., A.N., I.B., S.J.	Created hi-fi mockups for Home, Resource Directory, and Sign In pages. Established spacing, grid system, and responsive breakpoints before any code was written
10/14	Tech stack decisions and repo setup	1 hr	C.B., O.V., A.N., I.B., S.J.	Decided on Next.js 14 App Router, Firebase Auth + Firestore, Tailwind CSS, Framer Motion, and Gemini API. Created GitHub repo and configured ESLint, TypeScript, and Tailwind with Port Laken tokens
10/15	Scaffold Next.js project and global layout	2 hrs	C.B.	Initialized Next.js 14 App Router project; set up app/layout.tsx with Playfair Display and Nunito via next/font; configured Tailwind tailwind.config.ts with full Port Laken color palette
10/15	Firebase project setup	1 hr	O.V.	Created Firebase project; enabled Auth (email/password + Google) and Firestore; wrote lib/firebase.ts initializer and .env.local.example with all required keys
10/16	AuthContext and Firebase Auth integration	2 hrs	S.J.	Built context/AuthContext.tsx wrapping the app; handles sign-in state, user profile reads from Firestore users collection, and exposes auth methods to all client components

10/17	Home page — hero section and parallax	2 hrs	C.B.	Built hero section with absolutely positioned image slideshow using CSS transitions; added WeightedScrollProvider for scroll velocity tracking and Framer Motion parallax effects
10/18	Home page — quick links and awards carousel	2 hrs	C.B.	Added Quick Links that check AuthContext to route protected actions to /sign-in; built infinite-scrolling awards carousel using custom CSS animation (no third-party slider library)
10/18	Sign-in page	2 hrs	S.J.	Completed /sign-in page with Firebase Auth email/password and Google sign-in; implemented callbackUrl query parameter so users are returned to their original destination after auth
10/19	Resource directory — RESOURCES array and data model	2 hrs	C.B.	Created resources.ts with full RESOURCES array; each entry has name, category, shortDescription, fullDescription, address, mapCoordinates (lat/lng), phone, email, website, tags, imageUrl fields
10/20	Resource directory — page layout and masonry grid	2 hrs	C.B.	Built resource-directory page with responsive masonry grid; cards show category badge, short description, and contact snippet
10/20	Resource directory — Firestore live data merge	2 hrs	O.V.	On mount, page fetches Firestore resources collection filtered by approvalStatus == 'approved' and merges with hardcoded RESOURCES array so community-submitted entries appear alongside defaults
10/21	Resource directory — search and category filters	2 hrs	C.B.	Added search bar and category filter buttons; filtering runs client-side across merged hardcoded + Firestore data
10/21	Submit a resource — multi-step form	3 hrs	A.N.	Built /resource-directory/submit multi-step form; validates coordinates (must be geographically plausible), enforces US phone format; submits payload to Firestore with approvalStatus: 'pending'
10/22	Create account page	2 hrs	I.B.	Built /create-account with Firebase Auth email/password signup; on success initializes Firestore users document with uid, email, displayName, alertsSubscribed: false
10/23	Maps & Transport page — Leaflet setup	2 hrs	I.B.	Set up maps-transport page using Leaflet.js and react-leaflet; dynamically imported with SSR: false since Leaflet

				requires window object; added custom SVG markers for city landmarks
10/24	Maps & Transport — bus routes and transport info	2 hrs	I.B.	Added hardcoded bus route overlays (120/240/480/960) and intercity rail lines (West/South Peninsula, East/North Sound) to Leaflet map; added route info cards below map
10/25	About page — city stats and RollingNumber animation	2 hrs	A.N.	Built about page stats block; created RollingNumber component using Framer Motion that count-up animates population, parks, businesses, and satisfaction figures on scroll-into-view
10/25	About page — scroll-driven timeline	2 hrs	A.N., O.V.	Built city history timeline (1846–2024) using GSAP scroll-triggered animations; each era card animates in as user scrolls; timeline entries cover Harbor founding through Building Forward 2024
10/26	Events and calendar page	2 hrs	I.B.	Built events page with calendar grid view and upcoming event cards; events filterable by category; layout matches Figma mockup
10/26	Departments page	2 hrs	A.N.	Built departments page listing all Port Laken city departments with descriptions and contact info
10/28	API route — /api/spotlight-data	1 hr	O.V.	Created app/api/spotlight-data/route.ts returning spotlight entries as JSON; consumed by both news page and home page spotlight widget
10/29	City council page	2 hrs	C.B.	Built mayor-council page with council member cards, district assignments, bios, and meeting schedule
10/29	Boards & Committees page	2 hrs	C.B.	Built boards-committees page listing city committees, member info, and civic engagement CTAs
10/30	Team sync — Figma review and mid-point QA	1 hr	C.B., O.V., A.N., I.B., S.J.	Compared built pages against Figma designs; noted gaps in mobile responsiveness on resource directory and maps page; assigned fixes and reviewed remaining pages still to build
11/1	Ordinances page	2 hrs	A.N.	Built city ordinances page with searchable rules and regulations listings organized by category

11/2	Forms and permits page	2 hrs	O.V.	Built forms page listing permit and request form types with descriptions; added search/filter logic for finding forms by category
11/3	Environmental / sustainability page	2 hrs	O.V.	Built environmental page highlighting Port Laken sustainability programs, green initiatives, and relevant stats
11/4	Careers page	2 hrs	I.B.	Built careers page with job listing cards across city departments; added application info and contact links
11/5	Life in Port Laken page	2 hrs	S.J.	Built life page covering housing, parks, schools, transit, and community amenities; flagged broken link (/map should be /maps-transport) for later fix
11/6	References page	2 hrs	I.B.	Built /references page linking to worklog, copyright checklist, and sources PDFs; added disclaimer that Port Laken is fictional and map geography uses Port Angeles, WA as stand-in
11/7	Resend email integration	2 hrs	S.J.	Integrated Resend API; wrote lib/sendEmail.ts wrapper; built /api/send-email route for transactional emails from contact footer
11/8	Contact Us footer	3 hrs	S.J.	Built Contact Us footer component added to all pages; form submits to /api/send-email via Resend; includes address, phone, and social links
11/9	Admin broadcast API	2 hrs	C.B., O.V.	Built /api/admin/broadcast route; queries Firestore for users filtered by newsletterSubscribed or alertsSubscribed; dispatches bulk email via Resend; protected by ADMIN_SECRET query param
11/10	Alerts page — subscription UI	2 hrs	C.B.	Built /alerts page with toggle controls for emergency alerts and newsletter; writes updated preferences to Firestore users document
11/20	Localhost build verification and route audit	1 hr	C.B.	Confirmed full local dev build with npm run dev; audited all App Router routes; fixed several broken imports and verified AuthContext reaches all client components

1/4	Team kickoff — production rebuild planning	1 hr	C.B., O.V., A.N., I.B., S.J.	Re-aligned on production build goals; reviewed all prototype pages; assigned each member their pages to rebuild cleanly in the real Next.js codebase from the localhost prototype
1/4	GitHub org and project setup	1 hr	A.N.	Reorganized GitHub repo; set up branch protection and confirmed all five members could run npm install and npm run dev cleanly
1/5	Sign-in page — production	2 hrs	S.J.	Re-implemented /sign-in in production build with Firebase Auth, callbackUrl redirect logic, and error handling
1/6	References page — production	2 hrs	I.B.	Re-built references page in production; linked final worklog, copyright, and sources PDFs
1/10	About, Boards & Committees, Careers, Council, Departments, Environmental — production	6 hrs	O.V.	Rebuilt and finalized all six pages in production Next.js build matching Figma designs
1/14	Ordinances, News — production	3 hrs	I.B.	Finalized ordinances and news pages in production; spotlight section wired to API route
1/15	Resource Directory, Life page, Landing page, Forms — production	5 hrs	C.B.	Finalized four pages; updated resources.ts with full RESOURCES array; verified Firestore merge logic
1/19	Submit a resource — production	3 hrs	A.N.	Re-built resource submission form in production; Firestore write with approvalStatus: 'pending' confirmed working
1/23	Council page — district update	1 hr	I.B.	Added specific district boundaries and assignments to council member cards
1/26	Got ready for jan deadline — production	4 hrs	I.B. C.B., S.J.	Re-built /create-account in production; Firestore user document initialization on signup confirmed; finalized code
2/2	Resource directory UI redesign	2 hrs	C.B., S.J.	Redesigned resource directory to resemble a search results layout; improved filter UX and card information hierarchy

2/5	Leaflet maps — real route overlays	4 hrs	I.B.	Fixed Leaflet dynamic import; re-drew bus route polylines with accurate Port Angeles-area coordinates as stand-in; added custom SVG markers per route
2/7	Forms page — permits and search logic	3 hrs	S.J.	Expanded forms page with additional permit types; improved search to filter by form name and category simultaneously
2/8	Gemini API — initial integration	1 hr	O.V.	Began integrating Google Gemini 2.5 Flash API into resource directory; set up API client and initial prompt structure
2/9	Gemini AI — buildAiContext and RAG prompt	3 hrs	S.J.	Completed AI overview: built buildAiContext function that assembles PAGE_CONTEXTS metadata + filtered resources JSON into master prompt; instructs Gemini to return strictly formatted JSON with text, pageContextKey, and address fields
2/10	Team sync — AI feature review and QA	1 hr	C.B., O.V., A.N., I.B., S.J.	Demoed Gemini AI overview to full team; tested edge cases (hallucination, bad JSON); agreed to add regex substring fallback parser for when JSON parsing fails
2/11	Gemini AI — JSON parser and regex fallback	2 hrs	O.V.	Added robust JSON parser for Gemini responses; implemented regex substring fallback that extracts usable text if structured JSON parse fails; wired AIOverview.tsx to render summary and image carousel
2/13	Navigation bar overhaul	4 hrs	O.V.	Fully revamped Navbar with dropdowns, mobile hamburger menu, and improved accessibility; updated all route links; added active-state highlighting
2/14	Transportation section polish	3 hrs	I.B.	Expanded maps-transport page with detailed route info cards for all bus and rail lines; added 'How to Use This Map' section and Port Angeles disclaimer
2/19	Image sourcing and next.config.js setup	2 hrs	C.B.	Sourced Pacific Northwest imagery from Unsplash, Pixabay, Cloudinary, and Wikimedia; configured next.config.js remotePatterns for all external image domains
2/25	Stay in the Loop / alerts page	2 hrs	A.N.	Re-built alerts page; subscription toggles write alertsSubscribed and newsletterSubscribed fields to Firestore users document

2/27	Alerts page — email dispatch wiring	3 hrs	A.N.	Wired alerts page to /api/admin/broadcast; confirmed end-to-end: preference saved in Firestore ® admin triggers broadcast ® Resend dispatches email to subscribed users
3/1	Contact Us footer — production	4 hrs	S.J.	Re-built and finalized contact footer across all pages in production build; confirmed Resend /api/send-email route working
3/3	Home page number animations	3 hrs	C.B.	Added RollingNumber count-up animation to population (85,000), parks (19), businesses (1,500+), and satisfaction (98%) stats using Framer Motion on scroll-into-view trigger
3/6	Careers page — fixes and expanded listings	3 hrs	I.B.	Fixed routing error on careers page; expanded job categories across departments; added application links
3/8	ResourceCard and ResourcePopup components	2 hrs	S.J.	Refactored resource listing into reusable ResourceCard and ResourcePopup components in resource-directory/_components/; popup includes static Google Maps location block
3/9	Search section component	3 hrs	A.N.	Built reusable search/filter section component used across resource directory and forms page
3/14	Change password page	5 hrs	O.V.	Built /change-password with Firebase Auth credential re-verification before allowing password update; full error handling for wrong current password
3/15	Full site QA, cross-browser testing, and bug fixes	4 hrs	C.B., O.V., A.N., I.B., S.J.	All members tested every page across Chrome, Firefox, and Safari; fixed broken /map ® /maps-transport link on Life page, resolved Firestore security rule gaps, and verified Gemini fallback parser on edge-case queries
3/16	Final deployment, Netlify config, and submission prep	4 hrs	C.B., O.V., A.N., I.B., S.J.	Configured netlify.toml (Node 18, npm run build, .next publish, SPA fallback redirect); set all production env vars; verified live build; finalized worklog, copyright checklist, and sources PDF for submission