

# WEBSITE DEVELOPMENT PROCESS

	September				October				November				December		
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3
Login and Sign-up															
Pathfinding Module															
Map Visualization Module															
Database															
Deployment, Documentation & Maintenance															

## SEPTEMBER W1 - W4

Sprint Goal: Get a working authentication system.

Tasks:

- Design login/signup UI
- Implement user registration
- Integrate backend auth
- Store user accounts in database
- Test login/logout flow.

## SEPTEMBER W4 - OCTOBER W4

Sprint Goal: Develop the route optimization engine.

Tasks:

- Set up map/routing API
- Implement shortest-path algorithm
- Accept origin (fire station) + destination (incident)
- Display computed route
- Add ETA calculations with distance/time

## OCTOBER W4 - NOVEMBER W3

Sprint Goal: Show routes & assets on a map.

Tasks:

- Integrate a map library
- Overlay fire stations, hydrants, incidents
- Show computed route visually
- Add interactive markers

## NOVEMBER W3 - DECEMBER W1

Sprint Goal: Centralize storage & retrieval.

Tasks:

- Set up relational DB
- Create tables: users, incidents, hydrants, routes, response logs.
- Connect backend services to DB.
- Implement CRUD APIs

## DECEMBER W2- W3

Sprint Goal: Deliver a working MVP and finalize documentation.

Tasks:

- Deploy system to server
- Write user documentation
- Conduct system testing
- Fix bugs from testing.
- Prepare maintenance plan

Agile is suitable for this project because it enables the development of a simple working version early on and allows adjustments as new requirements or constraints arise. By delivering working increments each sprint, the system can be tested and refined continuously, ensuring that potential issues such as API limitations or database problems are identified and resolved early rather than discovered late in the process.