Project Plan

*13*estimator

Industry Partner	
Primary Instructor	Anjana Shah
Team Member	Pablo Arango Gomez
Team Member	Simon Kriksciunas
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Document Revision History

Revision #	Date
2.2	2/02/2025

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1. Executive Summary

The following describes the project to be executed.

Objective	Bestimator addresses key pain points in the construction industry with a solution that enhances estimation accuracy, optimizes material sourcing, and improves project management.
Corporate Goals Addressed	Delivers efficiency, accuracy and data-driven insight making it a valuable tool for contractors looking to streamline their daily operations in order to save time and gain a competitive advantage.
Planned Start Date	Thursday, September 12, 2024
Planned End Date	Friday, March 28, 2025

2. Project Approvers, Reviews and Distribution List

Approvers, reviewers and distribution list

Project Role	Name	E-mail	Date
Developer	Benn Graham	benn.graham@georgebrown.ca	2/02/2025
Developer	Onat Turan	101216227@georgebrown.ca	2/02/2025
Developer	Pablo Arango Gomez	Pablo.ArangoGomez@georgebrown.ca	2/02/2025
Developer	Simon Kriksciunas	100912566@georgebrown.ca	2/02/2025
Approver	Laily Ajellu	Laily.Ajellu@georgebrown.ca	2/02/2025

3. Scope

Define the sum total of all of its products and their requirements or features.

In Scope	Out of Scope
Calculation of required material	Integration with accounting software
Material Sourcing	CRM capabilities
Quote preparation	Mobile application
User-friendly Interface	Real-time communication between client and contractor

4. Deliverables

This project will deliver the following.

Deliverable	Description
Bestimator Web App	A web application for estimating the cost of materials and labour as well as sourcing materials from the cheapest and/or most convenient locations.
Calculation of workspace	User inputs their workspace dimensions or selects one from a preset list.
Calculation of material needed for preset/custom workspace	Calculates required quantities of materials based on workspace measurements. Handles common renovation scenarios (like flooring or tiling) while allowing customization for unique projects. Includes allowance for waste and cuts.
Locate nearby material suppliers	Uses location data to find and map building supply stores, specialty suppliers, and home improvement centers in the user's area.
Find price of required materials from nearby suppliers	Aggregates real-time pricing data from multiple suppliers to compare costs of needed materials.
Estimate total material cost	Combines material quantities with supplier pricing to generate accurate total cost estimates.
Output estimate breakdown on to invoice	Fully functional on both desktop and mobile devices, allowing users to create estimates on-site, update them in the office, or share them with clients from anywhere.
User-friendly Interface	Clean, intuitive interface that guides users through the estimation process step-by-step. Makes it easy to input measurements, select materials, and adjust quantities without needing extensive technical knowledge.
Responsive design	Fully functional on both desktop and mobile devices, allowing users to create estimates on-site, update them in the office, or share them with clients from anywhere.

5. Assumptions

This project makes the following assumptions:

- Access to reliable APIs that provide real-time updates on cost and availability of materials.
- Contractors are willing to trust and adopt new technology into their businesses.
- The needed staff, tools, and support will be available during the project.
- Users will have capable computers, phones and/or tablets that can run the software.
- Users have access to reliable internet connection for real-time features.

6. Dependencies

The following are the internal and external dependencies that will have to be acknowledged and addressed;

Internal Dependencies

Front-end and Back-end Development
- Successful completion of UI/UX design
- Successful completion of back-end API development
- Seamless integration between the two areas of development

Team Availability
- Team member schedules and prior commitments
- Academic workload

Testing and Debugging
- Ensuring front and back-end functionality before and after testing
- Ability of developers to successfully identify, isolate, and correct bugs in a timely manner
- Maintaining organized code-base to avoid unnecessary errors and bugs

External Dependencies

API Access for Material Sourcing
- Ensuring a reliable material sourcing API is available
- Monitoring API to ensure data accuracy

Vendor Cooperation
- Willingness of established vendors to entertain Bestimator's service offerings

Market Demand

- Market demand for an estimation tool like Bestimator
- Market willingness to adopt new technology to improve their operations

7. Risk Management

Potential Risk	Severity (H/M/L)	Likelihood (H/M/L)	Management Strategy
Low quality data	M	H	Validate and clean data retrieved from vendors/suppliers
API reliability	H	L	Develop backup API
Market competition	M	H	Implement features that enable Bestimator to stand out as the best option
User interest and adoption	H	H	Provide an easy and intuitive experience, with precise data and accurate estimates. Add ways to gamify the experience so users are encouraged to revisit the application.

8. Communication

Reporting

The following reports will be produced;

Report	Audience	Frequency
Progress Evaluation	Development Team	Monthly
Weekly status report	Development Team	Weekly

Meetings

The following meetings/communication will be established;

Meeting	Purpose	Attendees	Frequency

Deadline Sundays	To ensure clarity of goals, roles, and responsibilities and demonstrate new progress committed.	Full development team	Weekly
Feedback Fridays	To discuss important feedback gained and information learned from lab class.	Full development team	Weekly

9. Task Listing (WBS- Work Breakdown Structure)

The following resource proposal template summarizes the resource hours committed to this project, upon final approval of this document.

Reference	Tasks	Duration	Dependency
A	Develop backend API	48 hours	-
B	Implement workspace dimension input & selection	12 hours	A
C	Develop Material Requirement Calculation System	24 hours	A, B
D	Integrate supplier location mapping	16 hours	A
E	Implement material price sourcing from API	20 hours	A, D
F	Implement Quote Generation System	12 hours	C, E
G	Design & develop user-friendly interface	30 hours	B, C, E
H	Ensure cross-platform responsiveness	12 hours	G

General
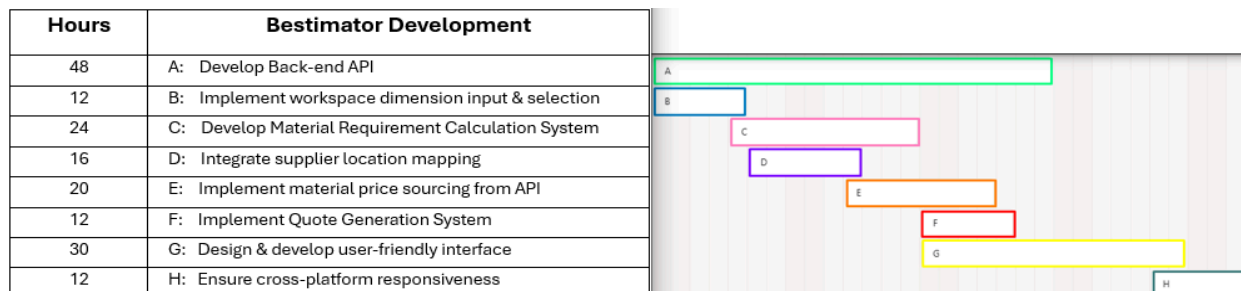- Purchase domain
- ~~Select tech stack~~

Frontend
- Landing/home page
- Signup/Login page
- Refine UI (Remove slideshow and mock data from sprint 4 presentation)
- ~~Frontend hosting (Vercel/Netlify)~~

- Features
  - Project/Quote Calculator
  - Project management dashboard

Backend
- Secure User Authentication & Authorization (OAuth2.0, clerk, nextAuth, Keycloak, JWT, etc.)
- Email sender for login/signup/password reset
- Relational Database (PostgreSQL)
  - Users table
  - Projects table
  - Invoices table
- Real time location API
- Integrate supplier data API
- Backend hosting (AWS, Azure, etc.)

10. Gantt Chart

Hours	Bestimator Development
48	A: Develop Back-end API
12	B: Implement workspace dimension input & selection
24	C: Develop Material Requirement Calculation System
16	D: Integrate supplier location mapping
20	E: Implement material price sourcing from API
12	F: Implement Quote Generation System
30	G: Design & develop user-friendly interface
12	H: Ensure cross-platform responsiveness

11. Milestones

Major Activity or Milestone	Estimated Milestone Target date	Owner/Reviewer Team Members
Complete UX	February 21, 2025	Benn Graham, Onat Turan
Develop project cost estimation/calculator	March 1, 2025	Pablo Arango Gomez, Simon Kiksciunas
Deploy to production	March 28, 2025	Pablo Arango Gomez, Simon Kriksciunas, Benn Graham, Onat Turan

12. RAM – Responsibility Assignment Matrix

Create a RAM from your Task Listing. A sample is shown below:

Project Team Responsibilities

Project Name: Bestimator
Project Manager: Pablo Arango Gomez

TASK	Pablo	Simon	Benn	Onat
Develop backend API	P	S		
Implement workspace dimension input & selection			P	S
Develop Material Requirement Calculation System	P	S		
Integrate supplier location mapping	S	P		
Implement material price sourcing from API	P	S		

Implement Quote Generation System	S	P		
Design & develop user-friendly interface			P	S
Ensure cross-platform responsiveness			S	P

P = Primary   S = Secondary

13. Approval

The signatures below indicate their approval of the contents of this document.

Project Role	Name	Signature	Date
Developer	Benn Graham	BG	2/02/2025
Developer	Simon Kriksciunas	SK	2/02/2025
Developer	Pablo Arango Gomez	PA	2/02/2025
Developer	Onat Turan	OT	2/02/2025