Project Charter: Smart Home

Groupe 5 :

Elie Kheirallah

Farouk Ait Oujkal

Jamal Assou

Alain M. Nitunga

Léo Calvo Castaño

helb
Ilya Prigogine

Project Overview

Project Objective: Develop a cloud-based IoT system to control home appliances through a web app.

Key Features:

- Real-time control of devices via Azure IoT Hub
- Web app with real-time updates using SignalR
- Backend services using Azure Functions in C#

Project Scope

Scope of Work:

• Development of a web application using Angular and SignalR for real-time device control

• Creation of serverless backend services using Azure Functions in C#

• Integration with Azure IoT Hub for device management

• User management and authentication

Exclusions:

• No responsibility for the IoT hardware board setup

Stakeholders

• **Developers:**
Elie Kheirallah
Farouk Ait Oujkal
Jamal Assou
Alain Nitunga
Léo Calvo Castaño

• **Product Owner:**
Ghassam Farah

• **Scrum Master:**
SCHUERMANS Mathieu
LEMNIAI Soufyan

• **Notetaker:**
Léo Calvo Castaño

• **Leader:**
Farouk Ait Oujkal

• **Facilitator:**
Alain Nitunga

Project Risks and Mitigation

IDENTIFIED RISKS:

- UNEXPECTED TECHNICAL CHALLENGES

- DELAYS IN DEVELOPMENT

- REAL-TIME COMMUNICATION (SIGNALR) COMPLEXITY

MITIGATION STRATEGIES:

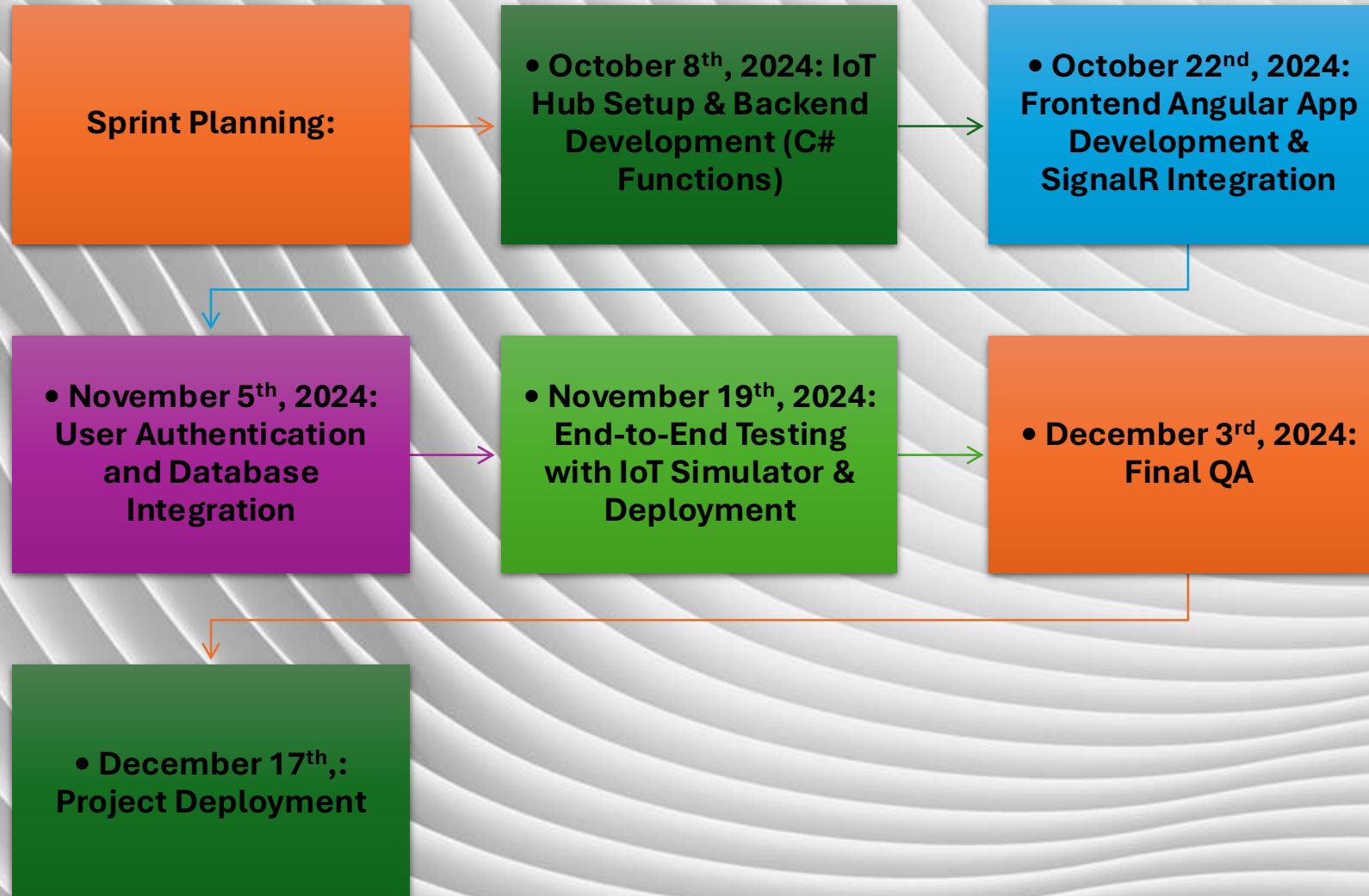- ALLOCATE TIME FOR LEARNING AZURE THROUGH TUTORIALS AND RESOURCES

- USE FREE-TIER RESOURCES IN AZURE AND MONITOR USAGE

- BEGIN REAL-TIME COMMUNICATION INTEGRATION EARLY TO CATCH ISSUES

Project Timeline and Sprints

Sprint Planning:

- October 8th, 2024: IoT Hub Setup & Backend Development (C# Functions)

- October 22nd, 2024: Frontend Angular App Development & SignalR Integration

- November 5th, 2024: User Authentication and Database Integration

- November 19th, 2024: End-to-End Testing with IoT Simulator & Deployment

- December 3rd, 2024: Final QA

- December 17th,: Project Deployment

Dev team

- Elie Kheirallah
https://www.linkedin.com/in/elie-kheirallah-a61613195/

- Farouk Ait Oujkal
https://www.linkedin.com/in/farouk-a-114429264/

- Jamal Assou
https://www.linkedin.com/in/jamal-assou-5972772a0/

- Alain Michel Nitunga
Nitungahttps://www.linkedin.com/in/nitunga-alain-m-97b9b229a/

- Léo Calvo Castaño
https://www.linkedin.com/in/l%C3%A9o-calvo-573ab729a/