Project II: Assignment Specification

Assignment Specification

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Context

For this assignment you are required to:

Create a working IoT project using a suitable distributed version control system.

Present and communicate your work in a clear, correct manner.

Begin to develop a digital portfolio.

Assessment will be based on technical (e.g., features), communication, organisational and presentation skills.

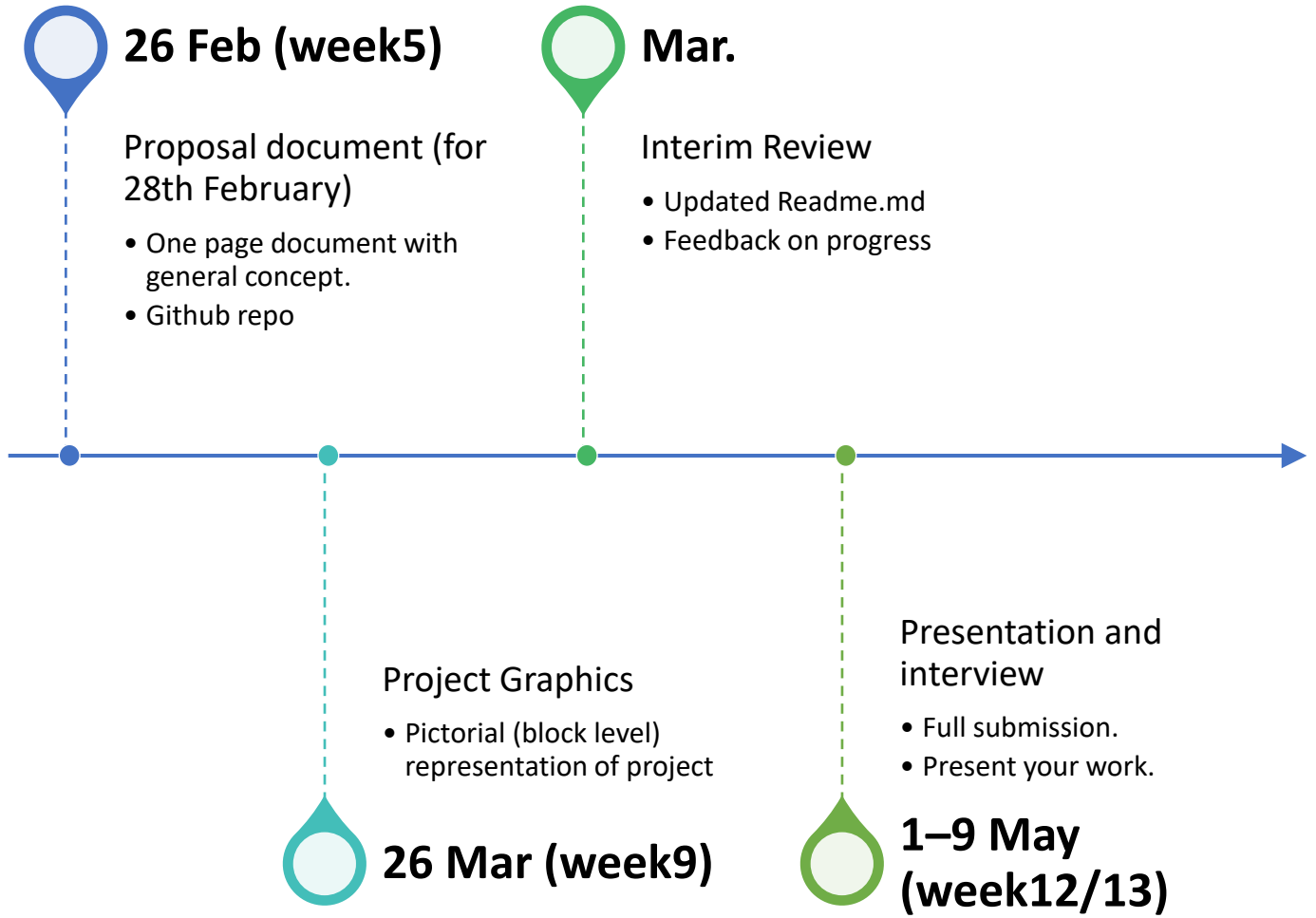
100% CA

1 overall project

Requirements

Propose	Propose a project •High level concept: Title; Description; Tools and Tech.
Model/ implement	Model/implement a solution to your proposal •Use the knowledge, skills and practices from other modules
Version Control	Use a suitable version control system to manage your portfolio of "artifacts".
Communictate	Produce clear documentation and/or training material for your project (e.g. project report, user guide, sushi cards)

Timeline


26 Feb (week5)
Proposal document (for 28th February)
• One page document with general concept.
• Github repo
Mar.
Interim Review
• Updated Readme.md
• Feedback on progress
Project Graphics
• Pictorial (block level) representation of project
26 Mar (week9)
Presentation and interview
• Full submission.
• Present your work.
1–9 May (week12/13)

Grade Spectrum

	Combined knowledge (25)	Working Artifact (25)	Digital Portfolio (25)	Communication (25)
Base (40-49)	2 programme strands present in output. Basic knowledge of each exhibited.	Basic working artifact consisting of a single device.	Basic structured portfolio. No coherent structure	Minimal (1) communication resource used (simple read me).
Good (50-64)	apply concepts from more than two modules/strands..	Working artifact that connects >= two devices.	Well structured portfolio in source control.	Portfolio includes clear presentation, documentation.
Excellent (65-80)	>2 strands as above and including more advanced knowledge and concepts.	All above, multiple device types to provide functional application.	Continuous update and progression of portfolio. Public site.	In addition, additional communication resources (e.g. instruction video, learning resources)
Outstanding (80-100)	All above, including self-acquired knowledge over and above module content.	All previous to excellent level.	All the above including advanced tools and features (e.g. branches, forks).	All the above, accessible project platform (e.g. web site)

Possible Theme: Black Box

- Vehicles are full of ECUs
- Develop prototype using Rpi/Arduino that records and transmits car telemetry (temp, humidity, accelerometer, gyro)
- Sends message when something happens
  - Collision (what happens accelerometer data?)
  - Car overturns (what happens Gyro data?)