Passion project

Student/group name:	Anita, Ozan, Francisco, Tair and Marcell
Approval by:	To be approved by Semester and Technical Coaches
Stakeholder:	- Group 1 Members - Fontys ICT Teachers - Companies/Professors in the *this is IT!* event
Included Topics:	- AI (Voice Recognition & Transcription) - Software Engineering (Fullstack app development) - Interactive Media (Branding, 3d modeling, marketing) - Network and Cloud (Cloud Hosting, API connections) - Intelligent Technologies (Hardware, Firmware, Circuits)
Context:	Software Engineering, AI-assisted documenting, Note-taking automation, TODO (write things)
Keywords: (*Important keywords defining your project; e.g. security, gaming, quantum computing, interactive art, etc.*)	Wearable tech, transcription, ESP32, AI-powered notes, speech-to-text, BLE/WiFi, assistive learning tools, smart device, Whisper AI
Project description: (*Describe your project; what do you want to do?, why?, how?, what would you like to learn?*)	Documenting is essential in both education and professional environments, as it helps capture important ideas, decisions, and action points during meetings. Well-structured notes improve understanding, memory, and overall productivity. However, in many group meetings, discussions move quickly, multiple people speak at the same time, and it becomes difficult for participants to both follow the conversation and take accurate

	notes. As a result, information is often incomplete, inconsistent, or scattered across different platforms. In this project we will be creating a device with a microphone (INMP) inside which with the sound it gets, creates a summary/transcribe that transforms into the FeedPulse. We want to create this in a way of creating a model that has market value and can help teachers, students and school board meetings on improving transcription. We would like to learn more about hardware basics, improve our professionalism from the last project, improve frontend/backend skills and AI while learning web technologies and the usage of other tools during the development phase. This project aims to simplify the process of capturing and organizing group meetings and sending it into FeedPulse. Unlike regular note-taking, this system focuses on making students and teachers tasks easier, by transcribing the words into FeedPulse, so the need to always remember and write feedback would be substituted by a quick automated solution, saving everyone's time.
Possible product:	Web application that is connected to a device. Using hardware and firmware to connect everything into the backend and storing data into a database, which will be used to send information into FeedPulse.
Possible tools/ technology:	Google Gemini Flash 2.5, React, Git version control, SupaBase, SupaBase database, SupaBase authentication, ESP 32 Node MCU, INMP 441 I2S microphone, Figma
Link(s):	*https://www.plaud.ai/?srsltid=AfmBOopgrI-PGJGxpNFk5RQ8m ijsy15kn9vggafmM_o3vU-HRKoc2RWL* - Plaud NotePin https://www.youtube.com/watch?v=UuxBfKA3U5M - ESP 32 guide https://www.youtube.com/watch?v=hn80mWvP-9g - React App beginner tutorial https://react.dev/ - React website

Possible examples:	Plaud NotePin, Otter.ai

Motivation:	We want to create this project as it has a lot of different topics -as mentioned before in the included topics section- and we can get to learn:
	
	● AI (Artificial Intelligence)
	    ○ Building and evaluating AI models
	    ○ Integrating AI into real-world applications
	    ○ Ethical and responsible AI use
	● Software Engineering
	    ○ Designing and building scalable applications
	    ○ Collaboration workflows (Git, Agile, code reviews)
	    ○ Testing, debugging, and maintaining software
	● Interactive Media
	    ○ Creating intuitive UX/UI
	    ○ Building interactive visual experiences
	    ○ Understanding human–computer interaction (HCI) and accessibility
	● Network & Cloud Computing
	    ○ Deploying applications on the cloud
	    ○ Networking fundamentals and security
	    ○ Building scalable, reliable cloud-based systems
	● Intelligent Technologies
	    ○ Using sensors, microcontrollers, and IoT devices
	    ○ Edge processing and real-time decision making
	
	We have a good product, with possible real market value. We liked the idea of automating FeedPulses, since it is a big problem that we have now, since sometimes we forget some information that could be added in the FeedPulse and we lose a lot of precious time writing, remembering and organizing ideas into a FeedPulse.