ALL / AMY / DAVIDE / GRACE / ANA / CHRIS / OLLIE

ANALYSIS / CRITIQUE / DETAIL

1. System Design [40pts]:

- need to discuss VERIFICATION and VALIDATION - are we building the product RIGHT (conforms to its specifications,so lay out the specifications here)
- VALIDATION - are we building the right PRODUCT - is it a valid solution to the problem?
    - DETAIL : what problem are we addressing? This needs to be discussed
- In this section, also need to highlight that because of AGILE development the design of our system was adjusted before each phase of implementation
- Consider adding in a sequence diagram as a companion to our UML diagrams.
- Talk more about data schema
- Need to highlight how we moved from ideation

- **Requirements of key sub-systems (in the form of selected user stories)**
- Tests that we needed to pass! Asserts : AMY / DAVIDE / GRACE / ANA
- DETAIL : what are the key needs of the users? : ALL
- DETAIL : add in the “non-functional” characteristics and requirements of the system including - security, reliability, ease of use, maintainability : ALL
- ANALYSIS : Test-driven development from Agile development - code written covers 1 test

- **Architecture of the entire system**
- Talk about the substitution principle - the common contract and data schema
- See architecture workshop
- DETAIL : Liskov Substitution Principle

- **Object-Oriented design of key sub-systems (e.g. Desktop Application, Web Application etc.)**
- ANALYSIS / CRITIQUE
    - DESKTOP : critique the design, analyse flaws - discuss how this changed during each phase of implementation : GRACE / ANA
    - WEB : critique the design, analyse flaws - discuss how this changed during each phase of implementation : CHRIS / OLLIE
    - M5Stack : critique the design, analyse flaws - discuss how this changed during each phase of implementation : AMY / DAVIDE

- Sequence diagram? : ensure that APIs between objects are clearly articulated

- **The evolution of UI wireframes for key sub-systems**
- At the beginning of the section, reflect on how we did this in an iterative fashion : Plan - Do - Check - React (add how we took into consideration user feedback) … User-center evaluation : ALL
- FORMAT PICTURES FOR SIDE BY SIDE COMPARISON!
- More detail and ANALYSIS needed so not just one line per picture!
- Talk about how we changed our design, can go beyond the pictures!
- DETAIL : EACH subsystem - talk about the User Interface Design
    - PROCESSING : GRACE / ANA
    - WEB : CHRIS / OLLIE
    - M5STACK : AMY / DAVIDE

- **Details of the communication protocols in use (including a rational for your choice)**
- ANALYSIS : Why did we chose to use JSON : AMY / DAVIDE / GRACE
- **Details of the data persistence mechanisms in use (including a rational for your choice)**
- ANALYSIS / CRITIQUE

- **Details of web technologies in use (including a rational for your choice)**
- ANALYSIS / CRITIQUE

2. System Implementation [40pts]:

- **Breakdown of project into sprints (showing the users stories implemented in each).**
    - **ADD IN TESTS WE WANTED TO PASS EACH WEEK : TEST-DRIVEN DEVELOPMENT**
- DETAIL : Always had operational software!
- DETAIL : Implementations by system during each sprint : ALL
    - Which user stories were most pressing.
- ANALYSIS : Consider where more time could have been devoted to each feature, etc. : ALL
- CRITIQUE :Add more critique into the way that we actually broke down the product in to sprints (ie : this was done too soon, etc) : ALL

- DETAIL : Integration testing and how this took place : AMY / DAVIDE / GRACE / ANA / CHRIS / OLLIE
- ANALYSIS Also need to highlight how we **RESPONDED TO CHANGE** over following a predefined plan (how we moved back the release of second beta version - prioritised operational software?)
    - Always doing integration testing : whole system constantly working, hence delay in pushing back project.
        - CRITIQUE :Releases were planned, but we did push one back :
- ANALYSIS ISSUES FACED highlighted by test-driving development
- AMY / DAVIDE - step count : pedometer.
    - To implement this user story online, use an external story.

- **Details of how you evaluated your designs (techniques used & awareness of their limitations)**
- This section is a good place to discuss how our verification and validation affected the design of our system!
- DETAIL : User evaluation, validation rather than verification.
    - Heuristic analysis: checklists from experts
    - Task-oriented observation: watch how users do stuff User "talk-throughs": get users to explain as they do Questionnaires: ask users written questions Interviews: talk to users one-on-one
    - Focus groups: talk to users in small groups
- ANALYSIS : Have to consider both the quantitative aspects (size/time/count) and qualitative aspects of our system (opinions/judgment/perceptions)
- CRITIQUE : Critique the fact that maybe we did not have enough user evaluation - need to adapt to this in the future (link to future work).
- DETAIL : For AGILE - progress measured by the amount of working code

- **Discussion of Social and Ethical implications of the work**
- DETAIL : why ethics are so important : socio-technical
- Research: How you study the domain
- Development: How you build the software
- Project Management: How you manage developers Evaluation: How you assess effectiveness of system Promotion & Adoption: How you get system into use System Operation: Long-term functioning of system
- SEE ETHICS DOCUMENTS FORM IN WORKSHOP MATERIALS
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3. Project Evaluation [20pts]:

- **Reflective discussion of the success of the project**
- ANALYSIS : discuss each of our subsystems : AMY / DAVIDE / GRACE / ANA
- CRITIQUE : opportunity to critique design decisions : ALL
- CRITIQUE : critique the way that we designed and implemented the system : ALL
- REMAINING ISSUES

- **Discussion of future work (in terms of design, development and evaluation)**
- DETAIL : Add what remains in the 'backlog' section of Agile development in the 'Do or Die' Kanban board : GRACE / ANA / CHRIS / OLLIE
- DETAIL /ANALYSIS : Read through future work and analyse, add more detail for each of your subsystems : GRACE / ANA / CHRIS / OLLIE
- Evaluate what user stories that were initially proposed were not implemented in the end, and how this would be implemented for future work

- **Reflect on the working practices of your group, how well they did or did not work, e.g, management of issues, communication, Agile (etc).**
- Really drive home how we were able to embrace change bc Agile : AMY

- **This is a chance to reflect on how coronavirus has affected your project (remote working practices etc)**

4. General Improvements:

- **README**
- References to be added to README section : GRACE / ANA / CHRIS / OLLIE
- Brief detail on what the references are used for : ALL
- Hyperlink to references section where necessary through document : ALL
- Ensure that it makes sense : DO YOU KNOW WHAT IS GOING ON FROM BEGINNING TO END!