**Capstone Weekly Project Summary**

Keep your total weekly project summary to a single double-sided printed page.

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| Week 1 | Project Status: Yellow |
| Tasks Completed/New Functionality | * Completed functionality of warm-up app. |
| Comments | Challenges to overcome: |

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| Week 2 | Project Status: Red |
| Tasks Completed/New Functionality | * Finished separating vendor code from app. * Added an up-to-date excel spreadsheet with time tracking info in the documents. * Got the source control under control. * Learned about Java layouts and how fun they aren’t.   Time spent – 19 hrs. |
| Comments | Challenges to overcome:   * Making a Java layout that looks professional * Finding a piano note .wav library that has all the notes I need for the apps that play a note to the user * Testing to make sure app is calculating pitch correctly and accurately.   Next week:   * Find a piano note .wav library that has all the notes I need for the apps that play a note to the user * Test app - calculating pitch correctly and accurately? |

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| Week 3 | Project Status: Red |
| Tasks Completed/New Functionality | * Located and downloaded a piano note .wav library that has the notes I need for the apps that play a note to the user. * Coded and debugged problems with Warm up app. * Tested app - calculating pitch correctly and accurately to +-3 Hz. |
| Comments | Challenges to overcome:   * Tighten up the pitch average calculation, needs to be within .5 Hz   Next Week:   * Warm up App styled, shows feedback in textbox/label. * Interval training app plays a note. * Interval training app lets user choose intervals and note range. * Interval training app   Time spent – 21 hrs. |

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| Week 4 | Project Status: |
| Tasks Completed/New Functionality |  |
| Comments | Challenges to overcome: |

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| Week 5 | Project Status: |
| Tasks Completed/New Functionality |  |
| Comments | Challenges to overcome: |

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| Week 6 | Project Status: |
| Tasks Completed/New Functionality |  |
| Comments | Challenges to overcome: |

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| Week 7 | Project Status: |
| Tasks Completed/New Functionality |  |
| Comments | Challenges to overcome: |

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| Week 8 | Project Status: |
| Tasks Completed/New Functionality |  |
| Comments | Challenges to overcome: |

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| Week 9 | Project Status: |
| Tasks Completed/New Functionality |  |
| Comments | Challenges to overcome: |

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| Week 10 | Project Status: N/A (presentation week) |
| Tasks Completed/New Functionality |  |
| Comments |  |

Project Backlog-

Features already planned for the project, from research and SME:

1.) A vocal student or musician would like to determine how accurate their ear is during warm-up exercises. They will sing or play a pitch and the system will give feedback on its accuracy based on its closest frequency.

2.) A vocal student is training to have perfect pitch, meaning they would like to envision a note in their mind and sing it accurately without any auditory prompting. The student enters how many random notes to try and the range of those notes. The system presents the name of a note to the student; the student sings the note and receives accuracy feedback based on the correct frequency.

3.) A student would like to see a visual representation of their performance as it is in progress. As the student varies the pitch of their note, the system provides a visual representation of pitch performance.

4.) A music instructor would like to evaluate a student’s pitch performance on a musical phrase or song. The system captures the student’s performance; it analyzes the performed music and displays accuracy feedback for the instructor and student based on closest frequency comparisons. The instructor saves the session for further review.

Added after project start:

1.) Computer plays a note, singer sings back the note, accuracy feedback given.

2.) Computer plays a note, singer identifies it.

3.) Interval training- play a random note and have the student sing a given interval from that note, for example, a fifth. Evaluate the student's pitch.

4.) Port to Android OS