**CS246 – Software Design and Development**

**W01-Prove: Course Goals Survey**

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| **Name:** |  |
| **Teacher:** |  |
| **Section:** |  |

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1. Current Knowledge – Rank your current knowledge in each of these areas. Knowledge of these areas is not required for this course. You will have the opportunity this semester to learn more about some of these if you choose.

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| **Skill** | **Ranking – Answer 1 to 3 where**  **1 = I haven’t learned this yet**  **2 = I know some but not effective yet**  **3 = I can use immediately if my employer asked me to** |
| **Write C++ Code** |  |
| **Write Java Code** |  |
| **Write Kotlin Code** |  |
| **Write Python Code** |  |
| **Write Rust Code** |  |
| **Write software to analyze data (e.g. statistics)** |  |
| **Store and use data in a cloud database** |  |
| **Store and use data in a SQL database** |  |
| **Create a game using a game platform** |  |
| **Create a map to convey information using a GIS library** |  |
| **Create a networking application (client/server or peer to peer)** |  |
| **Create an Android App** |  |
| **Create a Web App with platform like Django** |  |
| **Create an Adaptive App that can be hosted on a phone or the web.** |  |

1. Current Interests – Rank your current interest in each of these areas. You should use your responses to determine which two language and four discovery modules you want to complete during the semester.

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| **Skill** | **Ranking – Answer 1 to 3 where**  **1 = Not interested**  **2 = Interested to learn for personal development**  **3 = Very Interested to learn to support a career using this skill.** |
| **Write C++ Code** |  |
| **Write Java Code** |  |
| **Write Kotlin Code** |  |
| **Write Python Code** |  |
| **Write Rust Code** |  |
| **Write software to analyze data (e.g. statistics)** |  |
| **Store and use data in a cloud database** |  |
| **Store and use data in a SQL database** |  |
| **Create a game using a game platform** |  |
| **Create a map to convey information using a GIS library** |  |
| **Create a networking application (client/server or peer to peer)** |  |
| **Create an Android App** |  |
| **Create a Web App with platform like Django** |  |
| **Create an Adaptive App that can be hosted on a phone or the web.** |  |

1. Semester Module Plan – Based on your answers to the two previous questions, make a plan for which language and discovery modules you will complete during the semester. You should pick topics which you do not know well (score of 1 or 2 in the first question) and topics which you are interested in (score of 2 or 3 in the second question). You can change your mind and select different modules later. If you do not know Python yet, you are strongly encouraged to select it as your first language module. Mark you selections with an “X”.

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| **Language Module (Pick Two)** | **Module #1**  **Weeks 2-3** | **Module #4**  **Weeks 8-9** |
| C++ |  |  |
| Java |  |  |
| Kotlin |  |  |
| Python |  |  |
| Rust |  |  |

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| **Discovery Module (Pick 4)** | **Module #2**  **Weeks 4-5** | **Module #3**  **Weeks 6-7** | **Module #5**  **Weeks 10-11** | **Module #6**  **Weeks 12-13** |
| Android Mobile App |  |  |  |  |
| Data Analysis |  |  |  |  |
| Cloud Databases |  |  |  |  |
| SQL Databases |  |  |  |  |
| Games |  |  |  |  |
| GIS Mapping |  |  |  |  |
| Networking |  |  |  |  |
| Web Apps with Django |  |  |  |  |
| Adaptive Apps with VueJS |  |  |  |  |

1. Current Learning Skills – Rank your current capability in each of these learning skills. You should be intentional this semester to work on one or more areas that you ranked lower.

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| **Skill** | **Ranking – Answer 1 to 3 where**  **1 = I don’t do this**  **2 = I do this sometimes**  **3 = I do this frequently** |
| **RESEARCH** |  |
| **I use multiple sources of information.** |  |
| **I document what I am learning.** |  |
| **I prepare well thought out questions.** |  |
| **I use the scientific method (research, hypothesis, experiment, and conclusion) to solve computing problems.** |  |
| **I share what I am learning with others (i.e. collaboration).** |  |
| **I actively invite the Holy Ghost to support my learning.** |  |
| **TIME MANAGEMENT** |  |
| **I manage my time between all my responsibilities.** |  |
| **I effectively estimate task duration for assignments and projects based on my previous performance.** |  |
| **I create a schedule for all assignments and projects.** |  |
| **RISK MANAGEMENT** |  |
| **I always start with identifying what I don’t know.** |  |
| **I effectively identify what could fail based on my previous experiences.** |  |
| **I create mitigation plans for risks related to missing knowledge or potential failures.** |  |
| **CONTINUOUS IMPROVEMENT** |  |
| **I honestly identify the mistakes I have made in my work.** |  |
| **I develop improvement plans to support future assignments and projects.** |  |
| **I am driven by a vision of who I can become and personally created goals.** |  |

1. Personal Software Portfolio – Provide the link to your first public GitHub repository as described in the instructions for W01-Prove. Remember to document your repository with a README.md file.