ICS4U Summative: Coding Challenge Learning Rubric

| Score Levels | Content | Conventions | Organization | Presentation |
| --- | --- | --- | --- | --- |
| 4 | * Is well thought out and supports the solution to the challenge or question * Reflects application of critical thinking * Has clear goal that is related to the topic * Is pulled from a variety of sources * Is accurate | * Using proper terminology to get point across to the audience * High-level use of vocabulary and word choice | * Information is clearly focused in an organized and thoughtful manner * Information is constructed in a logical pattern to support the solution | * Multimedia is used to clarify and illustrate the main points * Format enhances the content * Presentation captures audience attention * Presentation is organized and well laid out |
| 3 | * Is well thought out and supports the solution * Has application of critical thinking that is apparent * Has clear goal that is related to the topic * Is pulled from several sources * Is accurate | * Good use of vocabulary and word choice | * Information supports the solution to the challenge or question | * Multimedia is used to illustrate the main points * Format is appropriate for the content * Presentation captures audience attention * Presentation is well organized |
| 2 | * Supports the solution * Has application of critical thinking that is apparent * Has no clear goal * Is pulled from a limited number of sources * Has some factual errors or inconsistencies | * Low-level use of vocabulary and word choice | * Project has a focus but might stray from it at times * Information appears to have a pattern, but the pattern is not consistently carried out in the project * Information loosely supports the solution | * Multimedia loosely illustrates the main points * Format does not suit the content * Presentation does not capture audience attention * Presentation is loosely organized |
| 1 | * Provides inconsistent information for solution * Has no apparent application of critical thinking * Has no clear goal * Is pulled from few sources * Has significant factual errors, misconceptions, or misinterpretations | * Poor use of vocabulary and word choice | * Content is unfocused and haphazard * Information does not support the solution to the challenge or question * Information has no apparent pattern | * Presentation appears sloppy and/or unfinished * Multimedia is overused or underused * Format does not enhance content * Presentation has no clear organization |

https://github.com/Ma1hT3ach3r/CodingChallenge/wiki

Things to include:

1. An original creative take on the coding challenge from each of the participants.
2. A live walkthrough, live coding.
3. Engaging creative design within the participants.
4. Use of social media(tweet shiffman minimum)
5. A shown use of research to link to uses to drive learning
6. Engaging the ability to refactor code to repurpose into other projects.
7. Slides, using either google slides
8. A step walkthrough (please specify a numbered amount of steps)

Curricular objectives: That will be considered in the evaluation

A: Programming Concepts and Skills

1. Data Types
2. Modular programming Concepts (Object Oriented Design)
3. Design Algorithms
4. Code Maintenance

Level 3 requirements:

-Explanation of where data structures are present(LOMS: Lists, Ordered sets, multisets, Sets)

-Connection to Object Oriented Design(Inheritance,

B: Software Development

1. Plan Develop Produce Close
2. Project Management

C: Designing Modular Programs

1. Modular Design
2. Analyzing Algorithms

D: Topics in Computer Science

1. Stewardship and sustaining of the project
2. Encouraging the open source community
3. Connection to emerging technology
4. Connecting to research in computer science

Get-it-Done Mentality

1. 1 working version per student involved in project of the coding challenge.
2. GitHub components:
   1. Folder to collect submitted participant creative contributions
   2. Project board showing aspects of the project.
   3. Issues tab used
   4. Wiki-page used to talk about the project, the research
   5. Working version of the presentation version in separate parts)
3. Presentation:
   1. Slides(github using html and markdown/google slides)
   2. Walkthrough in steps that can be followed
   3. Connection to through the explanation:
      1. Data types
      2. Object oriented design
      3. Algorithms
      4. Refactoring
   4. Meaningful creative possibilities suggested:
      1. Encouraging learning through art and creation
      2. Pointing to where they can connect to open source community(i.e. GitHub)
      3. Share connections found with regards to the emerging technology(I.e connection to machine learning)
      4. Share interesting research found that connects to topic.
4. Break-down of 50 minutes:
   1. How long will you spend explaining.
   2. How long will participants have to put together the challenge.
   3. How long students will be encouraged to be creative.