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| **Unit 2 –Password Generator Project** | | | | |
| **Content Area** | **Performance Quality** | | | |
| **Psuedocode Readability** | 10  Algorithm is organized and nicely formatted for easy use  **AND**  All steps in the algorithm are unambiguous and clear. | 7  Algorithm is organized and nicely formatted for easy use but some steps are ambiguous or unclear.  **OR**  Each individual steps in the algorithm is unambiguous, but the formatting and organization makes it somewhat difficult to use | 4  Algorithm has formatting and organization that makes it somewhat difficult to use **AND** some steps are ambiguous or unclear. | 0  Not enough criteria are met in order to reward any credit |
| **Algorithm Flow** | 5  The algorithm incorporates the appropriate use of all three types of programming structure: sequence, selection and iteration | 3  The algorithm incorporates the appropriate use of only two types of programming structure: sequence, selection and iteration | 1  The algorithm incorporates the appropriate use of only one type of programming structure: sequence, selection and iteration | 0  Not enough criteria are met in order to reward any credit |
| **Algorithm Correctness** | 10  The algorithm generates a unique and reproducible password for all sites. | 7  The algorithm generates a reproducible password for all sites, however, some may not be unique.  **OR**  The algorithm generates a unique and reproducible password for most sites.  **OR**  The algorithm generates a unique password for all sites, however, it is not reproducible. | 4  The algorithm generates a password for all sites, however, some may not be unique or reproducible.  **OR**  The algorithm generates a unique and reproducible password for only a few sites. | 0  Not enough criteria are met in order to award any credit. |
| **Algorithm Effectiveness** | 5  The algorithm cannot be easily deduced from just the password and the name of the site. | 3  A few parts of the algorithm can be easily deduced from just the password and the name of the site. | 1    Most parts of the algorithm can be easily deduced from just the password and the name of the site. | 0    Not enough criteria are met in order to award any credit. |
| **Examples** | 5  There are five sample passwords generated correctly based on the algorithm. | 3    There are four sample passwords generated correctly based on the algorithm. | 1    There are 3 or less sample passwords generated correctly based on the algorithm. | 0  Not enough criteria are met in order to award any credit. |
| **Documented Case** | 5    There is one annotated example documented at all steps of the process.  **AND**  It is well formatted and organized and easy to follow. | 3    There is one annotated example documented at most steps of the process AND It is well formatted and organized and easy to follow.  **AND**  There is one annotated example documented at all steps of the process, but the organization and formatting makes it difficult to follow. | 1    There is one annotated example documented at some steps of the process AND It is well formatted and organized and easy to follow.  **OR**  There is one annotated example documented at all steps of the process, but the organization and formatting makes it extremely difficult to follow.  **OR**  There is one annotated example documented at most steps of the process, but the organization and formatting make it difficult to follow. | 0    Not enough criteria are met in order to award any credit. |
| **Program Elements** | 5  The Scratch program uses the “ask” and “say” blocks to take all necessary inputs and output a final password.  **AND**  The Scratch program uses “if” blocks and “repeat” blocks to direct the flow of an algorithm effectively. | 3  The Scratch program uses the “ask” and “say” blocks to take some inputs and output a final password.  **AND**  The Scratch program uses either “if” or “repeat” blocks to direct the flow of the algorithm effectively. | 1  An ask block is used to take at least one user input, and a say block is used to output a final password.  **OR**  At least one “if” or “repeat” block is used to direct the flow of an algorithm | 0  Not enough criteria are met in order to award any credit. |
| **Program Correctness** | 10  The Scratch program is equivalent to the pseudocode algorithm, producing identical outputs for every possible input. | 7  The Scratch program produces the same outputs as the Pseudocode algorithm for some, but not all, of the possible inputs.  **OR**  The Scratch program correctly follows nearly all steps of the pseudocoded algorithm, but one or two are incorrectly implemented resulting in incorrect outputs. | 4  The Scratch program produces the same outputs as the Pseudocode algorithm for a few specific example  The Scratch program correctly follows some of the steps of the algorithm but many are incorrectly implemented resulting in incorrect outputs. | 0  Not enough criteria are met in order to award any credit. |
| **Program Readability** | 5  Comments clearly document the functioning of individual blocks and small groups of blocks to show how the code works. The code area is organized without extra unused blocks | 3  Several comments document what the effect of large blocks of code are but does not explain in any detail how these effects are achieved. The code area is organized without extra unused blocks  **OR**  Comments clearly document the functioning of individual blocks and small groups of blocks to show how the code works. The code area contains unused blocks. | 1  Some comments are added explaining what a few bits of the code does. The code area may be disorganized and contain unused blocks. | 0  Not enough criteria are met in order to award any credit. |
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