

# Lesson 1.06: Project ## Learning Objectives \* Apply basic Python knowledge about inputs/outputs and variables to create a game of Madlibs \* Practice good debugging skills ## Materials \* [Project Spec - Mad Libs] ([Printable Project Spec]) ([Editable Project Spec]) \* [Alternate Project Spec - Magic Square] ([Printable Alternate Project Spec]) ([Editable Alternate Project Spec]) \* Solution (access protected resources by clicking on "Additional Curriculum Materials" on the [TEALS Dashboard]) \* [Editable Grading Rubric] ([https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1\\_unit/06\\_lesson/rubric.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1_unit/06_lesson/rubric.docx)) ## Preparation \* Practice running the example code \* Read through the project specifications so that you can completely communicate the requirements of the project \* Review [4 Steps to Solve Any CS Problem] ## Day 1 Pacing | \*\*Duration\*\* | \*\*Description\*\* | | ----- | --  
----- | 5 Minutes | Quiz Debrief | | 10 Minutes | Project Overview | | 40 Minutes | Project Work | ## Day 2 Pacing | \*\*Duration\*\* | \*\*Description\*\* | | ----- | ----- | | 45 Minutes | Project Work | | 10 Minutes | Wrap Up - Student Demos | ## Instructors Notes ### 1. 4 Steps to Solve Any CS Problem \* Introduce students to the [4 Steps to Solve Any CS Problem] ### 2. Project Overview \* Introduce students to the Mad Lib concept by using a short, written out Mad Lib on the whiteboard, poster paper, or projector. \* Pass out and the project specification and walk students through all the requirements and potential challenges. \* Emphasize that prompts must ask for the correct noun-verb combinations. \* Encourage students to look at the grading rubric on page two repeatedly throughout the project to ensure they are meeting all the requirements. \* Demo a sample project solution (access protected resources by clicking on "Additional Curriculum Materials" on the [TEALS Dashboard])(<https://www.tealsk12.org/dashboard/>) for students to see how a completed program should function. \* Identify the sub problems of Mad Libs \* Have students list what variables, inputs, and print statements they will need ### 3. Project Work \* This project is a summative assessment for the unit. Students should be demonstrating mastery of all the skills covered. \* Most students will require roughly 1 hour of total work time to complete the project \* Assess the progress of your students regularly using such techniques as asking them to demonstrate their incomplete programs, tracking questions asked during lab time, and/or utilizing peer reviews. \* Adjust the amount of time allowed for the project to fit the needs of your students \* It is vital that nearly all students complete the project before moving on \* If most students have the ability to work on assignments at home, the amount of in-class time provided can be reduced if necessary. \* If this approach is taken, be sure to make accommodations for students who not able to work at home, such as after school lab hours \* Ensure that students are able to ask questions in class throughout the project ### 4. Wrap Up - Student Demos \* Celebrate and showcase student work once projects are completed. \* Have students demonstrate their Mad Libs for the class, with the class choosing what nouns/verbs/etc. to use for the story. ## SNAP Flashback - MadLibs ! [MadLibs]([lesson1.06%20-%20code.png](#)) ## Accommodation/Differentiation Ask students to research casting. Have them add, subtract, or multiply values as part of the story. ## Grading ### Objective Scoring Breakdown [Editable Grading Rubric]([https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1\\_unit/06\\_lesson/rubric.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1_unit/06_lesson/rubric.docx)) | Points | Percentage | Objective | Unit Location | | :---: | :-  
--: | --- | :---: | | 2 | 10% | Students can correctly use the IDE | 1.01 | | 6 | 28% | Student can correctly identify and store variable types | 1.02 1.04 | | 3 | 14% | Student can use the print function | 1.03 | | 5 | 24% | Student can decompose a problem to create a program from a brief | | 5 | 24% | Student uses naming/ syntax conventions and comments to increase readability | | \*\*21\*\* | \*\*Total points\*\* | | | ### Scoring Consideration You may need to adjust the points in order to fit your class. Treat the percentages as a guide to determine how to weight the objectives being assessed. ## Forum discussion [Lesson 1.06: Mad Libs (TEALS Forums Account Required)] (<https://forums.tealsk12.org/c/2nd-semester-unit-1/1-06-madlibs>) [Mad Libs - Example Code]: [project\\_file.py](#) [Project Spec - Mad Libs]: [project.md.html](#) [Alternate Project Spec - Magic Square]: [alternate\\_project.md.html](#) [TEALS Dashboard]: <http://www.tealsk12.org/dashboard> [4 Steps to Solve Any CS Problem]: <https://github.com/TEALS-IntroCS/2nd-semester-introduction-to-computer-science-principles/raw/master/units/4%20Steps%20to%20Solve%20Any%20CS%20Problem.pdf> [printable project Spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1\\_unit/06\\_lesson/project.pdf](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1_unit/06_lesson/project.pdf) [editable project spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1\\_unit/06\\_lesson/project.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1_unit/06_lesson/project.docx) [printable Alternate project Spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1\\_unit/06\\_lesson/alternate\\_project.pdf](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1_unit/06_lesson/alternate_project.pdf) [editable Alternate project spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1\\_unit/06\\_lesson/alternate\\_project.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/1_unit/06_lesson/alternate_project.docx)

