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

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) 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

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

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)