

Lesson 17: Project Hackathon Part 5

Overview

This is the final day of a five-day unit project. Students complete a Written Response, individually answering prompts about the project. Students then share their apps during a gallery walk.

Purpose

Students will demonstrate their app design and programming skills throughout this five day project. In addition, students work with a dataset as this ensures students will be using the types of programming constructs required for the Create Performance Task, which this project is designed as a practice for. Students complete the project by individually filling out a Written Response, modeled after the Create PT.

This project can be used as a unit project, or as an end cap to the first semester of the course.

Standards

Full Course Alignment

CSP Conceptual Framework

- **CRD-2** - Developers create and innovate using an iterative design process that is user-focused, that incorporates implementation/feedback cycles, and that leaves ample room for experimentation and risk-taking.

CSTA K-12 Computer Science Standards (2017)

- **AP** - Algorithms & Programming

Agenda

Lesson Modifications

Warm Up

Activity (40 minutes)

Written Response

Wrap Up (5 minutes)

Assessment: Grading the Project

Objectives

Students will be able to:

- Complete a Written Response modeled after the Create PT
- Complete the Hackathon Project app

Preparation

- Read through the Planning Guide paying particular focus to the Scoring Guidelines
- Review the **Example Written Response Submission** and **Example Project App Submission** (in the blue teacher panel)

Links

Heads Up! Please make a copy of any documents you plan to share with students.

For the teachers

- **CSP U5 Hackathon Submission on AP Classroom** - Resource
- **CSP Unit 5 - Lists Loops, and Traversals** - Slides

For the students

- **CSP U5 Hackathon Project Planning Guide** - Activity Guide
- **CSP U5 Hackathon Project Written Response** - Written Response

Teaching Guide

Lesson Modifications



Attention, teachers! If you are teaching virtually or in a socially-distanced classroom, please read the full lesson plan below, then click **here** to access the modifications.

Warm Up

Do This: Move quickly to the activity portion of the lesson.

Activity (40 minutes)

Written Response

Note: The Written Response is to be completed individually. From this point on, partners should not discuss anything about their project.

Teaching Tip

The Written Response portion of this project is a modified, short version of the Create Performance Task students will turn in to the College Board for the AP Exam. To have your students practice submitting this project using a similar interface to the Create Performance Task, see the **CSP U5 Hackathon Submission on AP Classroom** for instructions on how to set up an assessment on AP Classroom.

Do This: All students individually navigate to their projects on one tab or browser window. In another tab, students open the Written Response.

Teaching Tip

Programmers should share the project link with the designers. Designers open the project, then click "View Code", which is located on the top right of the screen.


Remarks


On your Written Response, you will need to insert screenshots of code segments. What's a code segment? It's a collection of program statements that are part of a program. Together, they demonstrate some working part of your program. You can use screenshots of text or blocks for your code segments.

Teaching Tip

Students may struggle with the prompt on managing complexity. Encourage students to think how the program would be written differently if no lists could be used. In most cases, this would involve a large amount of variables. Students need to be specific and explain what these variables would store.

Do This (30 mins): Students work silently to complete the Written Response. Students will need to take screenshots of code and insert those screenshots into the appropriate boxes in the Written Response. Students can check the Scoring Guidelines in the Planning Guide to make sure they are meeting all the requirements.

 **Submit:** Students submit their project (one per group), Planning Guide (one per group), and Written Response (individual).

 **Share:** Now students display their projects on a computer and complete a gallery walk. If you decide to have a winner of the hackathon, students can vote on their favorite projects by writing down the name of the project on a sticky note and passing it in.



Hackathon Project

Wrap Up (5 minutes)

💡 Teaching Tip

Feel free to skip the announcement of a hackathon winner if you want to keep the project non-competitive.

Remarks

Great work everyone on the Hackathon Project! It's amazing how much you were able to accomplish in a short amount of time. And now, the moment that everyone has been waiting for. I have tallied up the votes and the winner is...

Assessment: Grading the Project

Project: Use the Scoring Guidelines on the final page of the Planning Guide to assess student projects. The Written Response portion is individual, while the Overall Project portion is a group grade.