Name(s)_____ Period _____ Date _____

Activity Guide - App Exploration

In this activity you're going to figure out what sorts of inputs a computer (in this case, a smartphone) would need in order to solve various problems. In the four challenges below you will look at data in Code Studio.

Challenge 1: Is it Halloween?

Check out the Data: Level 3 in Code Studio
Version 1: This software addresses the problem of needing to know whether it is Halloween. It will check the date and tell the user whether or not it's Halloween.

Input Type	Information
Today's date	September 5
Halloween's date	October 31

What output should the software produce?

An external Yes or No

Advanced Version: The advanced version will tell the user how many days there are until Halloween.

Do you need any new inputs to the advanced program? If so, what are they?

No.

What output should the software produce?

Either an external Yes or a number of days until Halloween.

Challenge 2: Ring Silencer

Check out the Data: Level 4 in Code Studio
Version 1: This app addresses the problem of someone's cell phone ringing in class. It should be able to figure out when the phone is at a school, and turn the ringer off during that time, but turn it back on when the user leaves school.

Input Type	Information
Area Schools' Locations	City High school, Edison Middle School, Third Street Elem.
Phone's Location	City High School

What output should the program produce?

It should activate the mute function.

Advanced Version: The advanced version is more specific. It should be able to figure out when the phone is at a school, but it should only turn off the ringer when the user is quiet and not moving. If the user is moving around or making a lot of noise, it will assume that it is not class time and keep the ringer on.

Do you need any new inputs to the advanced program? If so, what are they?

Sound - a lot of sound
Movement - the phone is moving quickly

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Activity Guide - App I/O

Challenge 3: What to wear?

Check out the Data: Level 5 in Code Studio

This app addresses the problem of not knowing what to wear in the morning. Look through the different inputs available to you, and decide which ones will help to determine the output to the user. Circle any inputs that you think should be stored in the phone for later.

Input Type	Information
Weather Report	Today: Sunny, 45° F
Weather Report	Tomorrow: Rainy, 42° F

Describe a way you could improve this app.

Knowing the user's preferences and current trends

What new inputs would you need to make this improvement?

User's favorite styles
Current trends

Challenge 4: Movie Recommendations

Check out the Data: Level 6 in Code Studio

This piece of software addresses the problem of not knowing what movies to watch. Look through the different inputs available to you, and decide which ones will help to determine the output to the user. Circle any inputs that you think should be stored in the phone for later.

Input Type	Information
Movie Reviews	Since Then: 4/5 "Hilarious!" Mills: 5/5 "Even better than the book!" The Wait: 2/5 "Boring and predictable." Cargo: 3/5 "Exciting, but not much more." The Watch 2: 3/5 "If you loved the first one, you'll want to see this."
Movie Showings	Central Cinemas: ● Since Then (PG - Comedy) ● Mills (R - Drama) ● The Wait (PG - Mystery) ● Cargo (Action) Midtown 5: ● The Watch 2 (PG - Action) ● Since Then (PG - Comedy) ● Mills (R - Drama) Highlights 8: ● The Wait (PG - Mystery) ● Cargo (Action) ● Since Then (PG - Comedy) ● Mills (R - Drama)
User's Favorite Books	Whistler (Mystery) Mills (Drama)
User's Favorite Movies	The Watch (Action) Further (Mystery) The Last Night (Drama)

Compare your method, and the inputs it needed, to another group's method. What are the advantages and disadvantages of each? How might you combine your ideas to make a better app?