

Name(s) _____ Period _____ Date _____

Activity Guide - App Exploration



In this activity, you'll figure out what inputs a computer (in this case, a smartphone) would need in order to solve various problems, and what processing should be done on the information.



Ring Silencer App

Define

This app solves the problem of the user's phone ringing in class. It figures out when the phone is at a school and turns off the ringer. It turns the ringer back on when the user leaves school.

What type of output should the app produce? Turns the phone ringer on / off

Prepare

Fill out the following table with information that the app needs and whether you will find the information from a **phone sensor** or **the Internet**. Decide whether you want to store the information for later.

What type of information do you need?	Where will you find the information?	Store for later?
My location	Phone sensor (GPS)	No
Locations of schools	Internet	Yes

How will you process the information to get the output?

If my location is also a location for one of the schools, turn the ringer off.

If it's not, turn the ringer on.

Try

Use the method you created above to process the information on the Data Sheet.

What is the output? Turn the ringer off

Reflect

This app turns off the ringer even when the user is not in class. An advanced version would only turn off the ringer at school when the user is quiet and not moving. If the user is moving around or making a lot of noise, it would assume that it is not class time and keep the ringer on.

Fill out the table below with the new inputs you will need for this advanced version.

What do you need to know?	Where will you find the information?
Noise level	Phone sensor (microphone)
Movement	Phone sensor (motion sensor)

Activity Guide - App I/O



Movie Recommendation Challenge



Define

This app addresses the problem of not knowing what movies to watch. Look through the information available to you, and decide what will help to choose a movie for the user.

What type of output should the app produce? a movie name

Prepare

Fill out the following table with information that the app needs and whether you will find the information from a **phone sensor**, **the Internet**, or **user input**. Decide whether you want to store the information for later.

What type of information do you need?	Where will you find the information?	Store for later?
Favorite movies	User input	Yes
Movies Playing	Internet	No
Cinema locations	Internet	Yes
My location	Phone sensor (GPS)	No

How will you process the information to get the output?

Get the movies playing at the cinema closest to me. If I like a movie that is the same type as a movie that is playing, I should see that movie. If there aren't any ones I will like at that cinema, go to the next closest cinema and do the same thing.

Try

Use the method you created above to process the information on the Data Sheet.

What is the output? Mills

Reflect

Compare your method, and the inputs it needed, to another group's method.

What is one advantage of the other group's method?

They looked at movie reviews and only recommended ones with good reviews

How might you combine your ideas to make a better app?

Look at reviews and type of movie