AI & Machine Learning
Lesson 17
Survey Planning

Warm Up

Hawa's App Idea: Club Recommender

This app asks you questions about what you're interested in, then recommends a club to join at your school. This helps with feelings of isolation because joining a club is a good way to meet people with similar interests.

Do we think this app uses data for machine learning?

Writing Prompt:

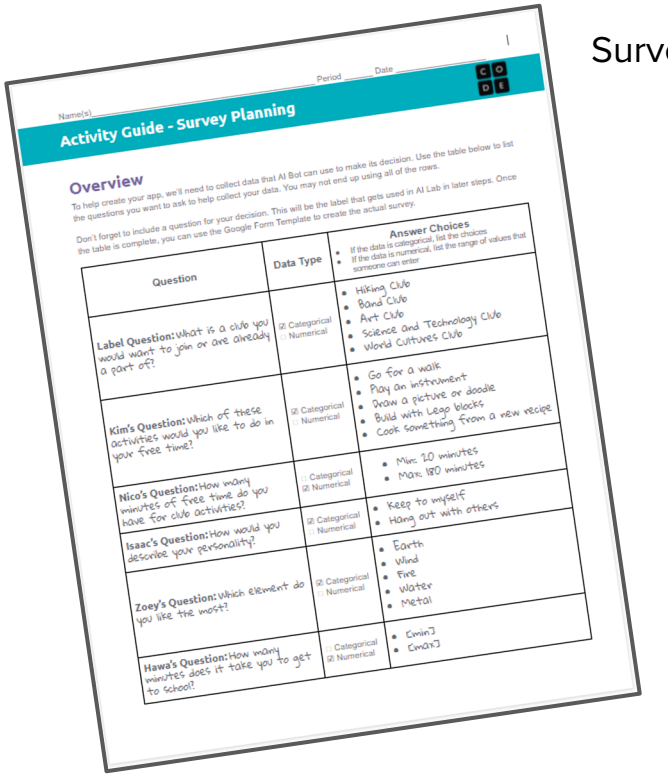
The team has decided to go with the Club Recommender app. The next step is to gather the data they need to create their model. They plan to interview different people to determine what kind of club their app should recommend. What kind of questions do you think they should ask to help recommend a club to join?

Rhetorical Question of the Day

How can I create a survey to gather data for a machine learning app?

Activity

Prepare



Name(s) Period Date

Activity Guide - Survey Planning

Overview

To help create your app, we'll need to collect data that AI Bot can use to make its decision. Use the table below to list the questions you want to ask to help collect your data. You may not end up using all of the rows.

Don't forget to include a question for your decision. This will be the label that gets used in AI Lab in later steps. Once the table is complete, you can use the Google Form Template to create the actual survey.

Question	Data Type	Answer Choices • If the data is categorical, list the choices • If the data is numerical, list the range of values that someone can enter
Label Question: What is a club you would want to join or are already a part of?	☑ Categorical ☐ Numerical	• Hiking Club • Band Club • Art Club • Science and Technology Club • World Cultures Club
Kim's Question: Which of these activities would you like to do in your free time?	☑ Categorical ☐ Numerical	• Go for a walk • Play an instrument • Draw a picture or doodle • Build with Lego blocks • Cook something from a new recipe
Nico's Question: How many minutes of free time do you have for club activities?	☐ Categorical ☑ Numerical	• Min: 10 minutes • Max: 180 minutes
Isaac's Question: How would you describe your personality?	☑ Categorical ☐ Numerical	• Keep to myself • Hang out with others
Zoey's Question: Which element do you like the most?	☑ Categorical ☐ Numerical	• Earth • Wind • Fire • Water • Metal
Hawa's Question: How many minutes does it take you to get to school?	☐ Categorical ☑ Numerical	• [min] • [max]

You should have:
Survey Planning Activity Guide (on Schoology)

Writing Prompt:

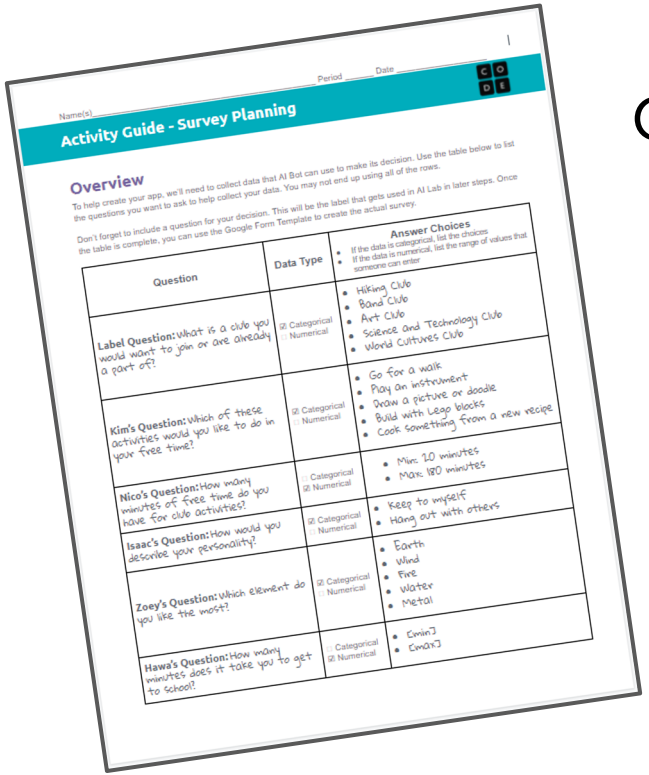
What is a question that you think will have a strong relationship with the label question?

Label Question: What is a club you would want to join or are already a part of?	☑ Categorical ☐ Numerical • Hiking Club • Band Club • Art Club • Science and Technology Club • World Cultures Club

Writing Prompt:

What is a question that you don't think will have a strong relationship with the label question?

Label Question: What is a club you would want to join or are already a part of?	☑ Categorical ☐ Numerical • Hiking Club • Band Club • Art Club • Science and Technology Club • World Cultures Club



Name(s) _____ Period _____ Date _____

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Hawa's Question: How many minutes does it take you to get to school?	☐ Categorical ☑ Numerical	• 5min • 15min

Do This

Create 3 questions of your own to include in the survey.

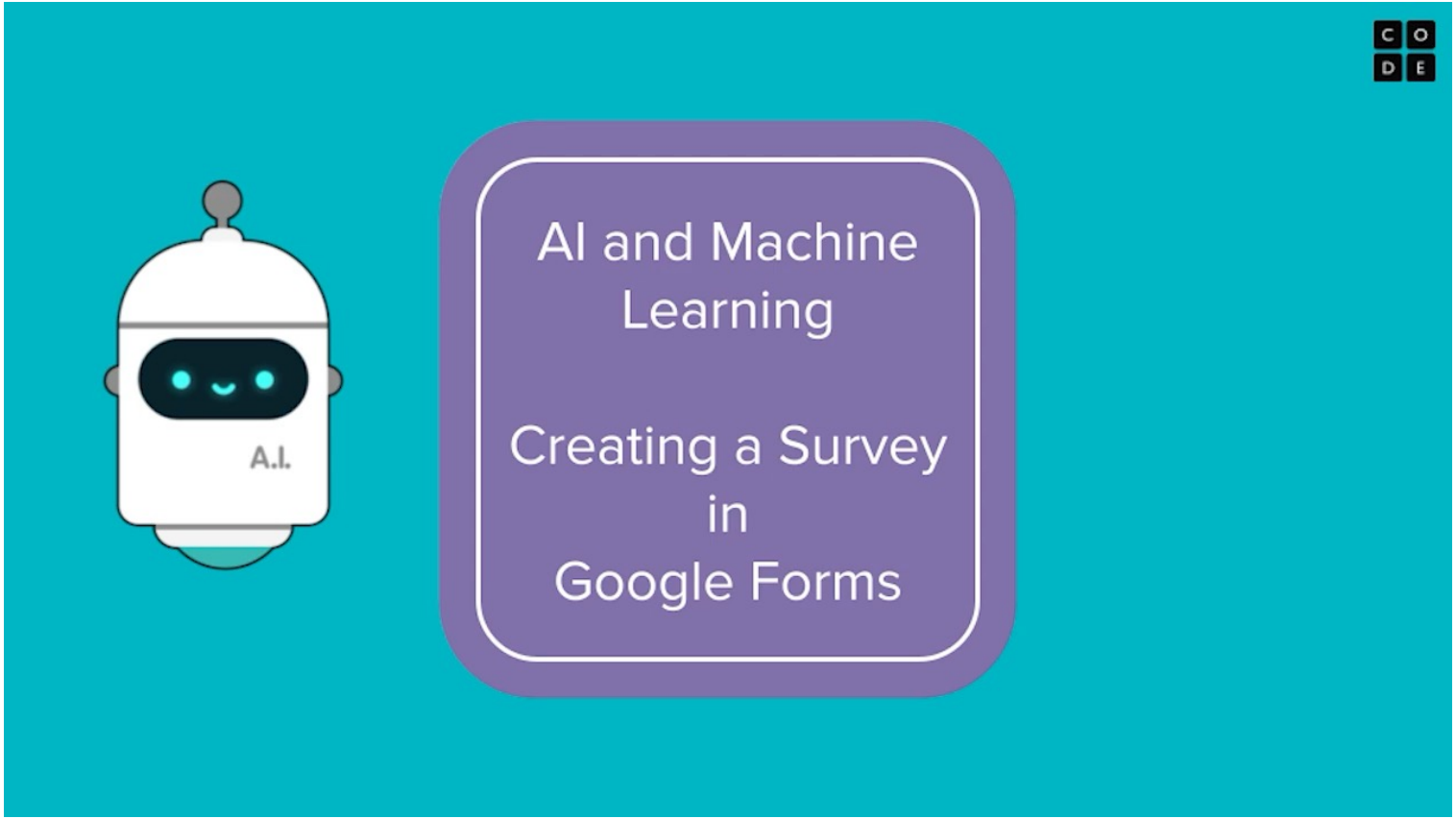
Mark the questions as categorical or numerical.

List the possible choices or expected range of values for the responses.

Code.org

Log into Code.org

Navigate to Lesson 17 Level 1 - Create a Google Form


A.I.
AI and Machine Learning
Creating a Survey in Google Forms

Do This

Make a copy of the google form, then use the checklist on your activity guide to help keep track of your progress

- [ ] Rename the form to be “Club Recommender Survey”
- [ ] Add the Label Question: What is a club you would want to join (or are already a part of)
- [ ] Add [Name]’s question: Which of these would you prefer to do in your free time?
- [ ] Add [Name]’s question: How much free time do you have for club activities?
- [ ] Add [Name]’s question: How would you describe your personality?
- [ ] Add [Name]’s question: Which element do you prefer?
- [ ] Add [Name]’s question: How many minutes does it take you to get to school?
- [ ] Add Your Questions

Do This

Use the Preview Button to open your form.

Have ten other students in the classroom fill it out.

View the results as they come in to start noticing trends and patterns in the data.

Wrap Up

Writing Prompt:

1. Today in class, only the people in this room filled out the survey. Who are the other people in your community you would want to fill out this survey? What would you recommend [team name] does to make sure they have a wide range of people participate in the survey?

Question of the Day

How can I create a survey to gather data for a machine learning app?