

APPS FOR MOBILE DEVICES

THEME	Using GPS
FORMAT	Collective (all students participate simultaneously)
PREPARATION TIME	2 hours
ACTIVITY LENGTH	60-90 minutes
DIFFICULTY LEVEL	Average

PEDAGOGICAL GOALS

- Increase the range of features that were used in the AppInventor environment
- Develop projects using sensors

NECESSARY MATERIALS

Computer room with computers connected to the Internet

APPS FOR MOBILE DEVICES

Preparation:

- To perform this activity, it is recommended that aiStarter is installed on the computer or that students have AI2Companion installed on their cell phones so that they can test the created application.
- Make sure computers have access to <http://appinventor.mit.edu/explore/>

Conducting the activity:

Divide the class into pairs or trios depending on the number of computers available at your school. Ask them to click on “Create apps”, then on “Start New Project”, naming the project as “My GPS – Student Name”.

Guide students on which interface components they will need to implement the app.

- Label with the text "Insert location".
- horizontal layout (Layout -> HorizontalArrangement)
- Text box
- Button with the text "Insert"
- Empty label to create vertical space
- Label with the text "Location Saved"
- Another empty label
- An empty label to be altered in Blocks
- A button with the text "Take me"
- A location sensor
- Database TinyDB
- And, finally, the "activity starter", which is located inside the Connectivity option.

Guide students on how to arrange components on the screen.

Now, ask students to enter the programming tab by clicking on “Blocks”.

Teach students the functions of the different blocks needed to implement each screen of the app and guide them in assembling these blocks.

For more information, visit <https://codeiot.org.br/>

At the end of the class ask students to test the created application.

Discussion and reflection:

After completing the activity, discuss with your students the concepts covered in this class. See examples of some questions that can be used to start the discussion.

- How does GPS work? Where does the acronym GPS come from?
- Where do we use GPS in our daily lives?
- How does Google Earth and Google Maps work? Are there differences?

Créditos:

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