Lvl\U/p Workshops

Intro to Full Stack Development for High School Students

REQUIREMENTS

- Desire to learn about Web Development
- Desire to have fun
- Wifi-enabled laptop (and power cord).
- Love of sandwiches and memes
- Personal rubber duck (supplied)

LEARNING OBJECTIVES

Cognitive: What will you learn about Development Process?
Skills: What development things will you learn to do ?
Affective: What do you value as a result of Lvl\U/p: IFSD?

Cognitive

Students will

1. Articulate the steps of the development process from start to finish.
2. Articulate the tools used to build a Rails app and what they are for.
3. Articulate a basic programming and development vocabulary
4. Articulate knowledge of basic command line terms as they apply to development in Rails, Git and Github and Heroku and C9 IDE.

5. Articulate fundamental concepts of programming: pseudo code , basic calculations, an array and loops and conditional statements.
6. Articulate a recognition of autodidactic learning as an ongoing need in the process of learning to develop and program.
7. Articulate a variety of career paths specifically using coding and development, and others in which coding and development might be useful.

Skills

Students will be able to

1. Build a site using basic Ruby, Rails, Git and Github and Heroku in an online IDE from start to finish.
- Use the M-V-C Model, and watch it work
- Use Rails, a popular Full Stack Framework
- Initiate a migration in Rails, use a development(SQLite) and deploy(pg) database, and understand how they are separate.
- Add a Bootstrap gem to their project, and do basic styling of their application
2. Use developer tools in the basic App build: Ruby, Rails, Git and GitHub, IRB, Terminal (Command Line), Intro to Bootstrap, and Heroku.
3. Define basic development and programming terms after completing a cooperative reference.
4. Use the command line for App build, using commands for C9 IDE, Rails, Git and Github and Heroku.
5. Participate in a pseudo-code exercise. W rite simple calculations, an array, loops, and conditional statements in IRB then apply that experience in building an app.

6. Identify and use online developer-oriented resources to ask and answer questions
7. Identify some future personal applications of the skills they are learning

Affective

Students will show they have internalized `Lvl\U/p` *Values by*

1. Actively participating in hands-on activities and class discussions. *
2. Respecting fellow classmates' work and workspace by first asking to touch their keyboard and waiting for a response of yes or no (and abiding by that).
3. Respecting fellow classmates' time by listening to the instructor and working with the class.
4. Using kind, supportive statements in interactions with fellow workshop attendees.
5. Demonstrating patience, and participating in problem solving activities.
6. Asking for help when they need it, within class guidelines. **

* within personality boundaries, of course.
** Questions are sometimes held until the end of a section. Instructor will make every effort to help the student as soon as possible.