CS50's Web Programming with Python and JavaScript

OpenCourseWare

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Welcome

This course picks up where CS50x (https://cs50.harvard.edu/x/) leaves off, diving more deeply into
the design and implementation of web apps with Python, JavaScript, and SQL using frameworks
like Django, React, and Bootstrap. Topics include database design, scalability, security, and user
experience. Through hands-on projects, students learn to write and use APIs, create interactive
UIs, and leverage cloud services like GitHub and Heroku. By semester's end, students emerge with
knowledge and experience in principles, languages, and tools that empower them to design and
deploy applications on the Internet.

Prerequisites

CS50x (https://cs50.harvard.edu/x) or prior experience in any programming language.

▼ **Watch an introduction**

How to Take this Course

Even if you are not a student at Harvard, you are welcome to "take" this course for free via this OpenCourseWare by working your way through the course's nine weeks of material. If you'd like to submit the course's six projects for feedback, be sure to create an edX account

(https://courses.edx.org/register), if you haven't already. Ask questions along the way via any of the course's communities!

- If interested in a verified certificate (https://www.edx.org/verified-certificate) from edX (https://www.edx.org/), enroll at cs50.edx.org/web (https://cs50.edx.org/web) instead.
- If interested in a professional certificate (https://www.edx.org/professional-certificate) from edX (https://www.edx.org/), enroll at cs50.edx.org/programs/web (https://cs50.edx.org/programs/web) instead.
- If interested in transfer credit and accreditation (https://extension.harvard.edu/for-students/student-policies-conduct/transfer-credits-accreditation/) from Harvard Extension School (https://www.extension.harvard.edu/), register at web.dce.harvard.edu/extension/csci/e/33a (https://web.dce.harvard.edu/extension/csci/e/33a) instead.
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How to Teach this Course

If you are a teacher, you are welcome to adopt or adapt these materials for your own course, per the license.