Course Design of E-commerce Website Construction Based on Python Web Framework

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Abstract

In recent years, the application of Python programming language has become more and more extensive, from cutting-edge artificial intelligence development to general data analysis statistics, small program application development, etc. Python can be seen everywhere. As an important content in the network economy, e-commerce websites have also appeared based on the Python Web framework. In view of the wide application of Python, for higher vocational students, it is still important to develop e-commerce website construction courses based on the Python Web framework. This article designed a course for e-commerce website construction based on the Python Web framework for higher vocational students.

Keywords

Python; Web framework; E-commerce website; Course design.

1. Introduction

With the rapid development of artificial intelligence, Python programming is becoming more and more popular. It can be used for both cutting-edge deep learning and simple basic programming. It has powerful functions, complete ecosystem, great social demand, and low entry threshold, easy to learn and easy to use. Python has a more obvious advantage over the current PHP technology. Based on this, the person in charge of the project chose the dynamic website construction technology based on the Python Web framework as the teaching space of the e-commerce website construction course, and for this purpose carried out the course construction of the "e-commerce website construction course" based on the Python Web framework.

As new and hot technology in recent years, in Python training teaching, it is mainly based on programming applications, and market training is more abundant in higher education courses. The applicable objects are mainly for students who are engaged in programming. Python teaching specifically for e-commerce website construction, especially e-commerce website construction teaching for higher vocational students, is rare. Therefore, the construction of the "e-commerce website construction" course based on Python Web framework for vocational e-commerce students can effectively make up for this shortcoming, which is in line with the development trend of the times and the employment needs of students and has important teaching Meaning and practical significance.

2. Course design

The design of this course focuses on the cultivation of professional competence, with the goal of adding an employment skill for students, and the goal of training advanced application-oriented talents for the frontline of employment, and strives to improve students' professional application ability and social adaptability. Take the example project teaching mode to organize teaching, fully

embody the characteristics of "doing well in learning, learning well in doing," and implement the overall design of the course with real development cases.

In the design of course teaching content, professional teachers work together with front-line experts and technical personnel in the industry to develop practical cases, integrate post competence standards into the curriculum, and establish curriculum standards; design teaching modules and teaching schemes by combining work and learning, project-driven; Pay attention to the assessment of vocational ability, and adopt the method of a comprehensive assessment of teachers and enterprise instructors. Generally, e-commerce websites based on the Python Web framework are built for content organization and teaching.

3. Teaching content design

3.1 Course analysis

The basic course of e-commerce website construction is a required course in an e-commerce professional training program. The course is based on practical applications and focuses on cultivating students' basic ability in e-commerce website construction. On the basis of the necessary theory, pay attention to the study of the methods and techniques of e-commerce website construction, and master the relevant skills required for the post. The prerequisite course of this course is "Webpage Design and Production", and the follow-up course is "Marketing Website Construction".

The course aims to enable students to master the basic knowledge and key technical points of the Python Web framework, and initially establish a general understanding of the Python Web framework. Aiming at the special academic situation of vocational students, the focus is on cultivating students' framework application ability. In the course design, according to the knowledge goals, ability goals, quality goals and course content requirements in the course standards, the actual development cases are introduced, and the course content is divided into several sub-projects for case teaching, which is divided into Python basic knowledge and Web framework. Basic knowledge, practical cases, etc. Efforts to enable students to master the knowledge and skills related to the construction of e-commerce websites based on the Python Web framework, highlight the students 'practical skills, stimulate students' innovative awareness, be able to apply the knowledge they have learned to practice, and master a real employment foundation Skills, meanwhile, lay a solid foundation for further learning.

3.2 Teaching model

Through teacher operation demonstrations, student on-board exercises, teacher comments, and feedback, etc., improve students' practical ability and classroom concentration. Adopt a task-driven teaching method. The teacher designs one or several tasks on the basis of analyzing the learning situation goals and assigns tasks to the students. The students are divided into several groups, each group is composed of project managers, website artists, website programmers, database technicians, account managers, etc. The group analyzes and discusses the task objectives, starting point ability, method steps, and design knowledge, and makes a complete plan, which is finally evaluated by the teacher and the team representative; the teacher-guided and student-based learning is the main method. The students' professional ability and social ability can be exercised at the same time. In the teaching process, it is advocated to cultivate practical ability. Through advocating the main teaching mode of teacher operation demonstration, student on-the-machine practice, teacher comment, and feedback improve students' practical ability and classroom concentration.

3.3 Teaching activity design

The course "E-commerce Website Construction Based on Python Web Framework" takes practical cases as the mainline and carries out instructional design according to knowledge points, mainly including teaching plan design and teaching resource design. This article takes the installation of the Python Web framework as an example to design teaching activities.

(1) Teaching plan design. The class plan is an important text for teachers to carry out teaching activities smoothly and effectively. In the class plan, it is necessary to clarify the learning objectives of the time, clarify the major and difficult points, what teaching methods are adopted, and which teaching activities are carried out, starting in time order. Python Web framework installation and configuration teaching plan design examples, as shown in Table 1.

(2) Design of practical training tasks. The practical task is an important content for students to hold the knowledge and skills step by step. The design of the Python Web framework installation training task is shown in Table 2.

(3) Course evaluation design. To achieve diversified evaluation methods and strive to comprehensively evaluate students to promote teaching. From the perspective of the evaluation subject, different methods of evaluation can be used for different teaching methods, such as student self-assessment, student mutual evaluation, and teacher comments. Evaluation of results inspection and other aspects. Improve the proportion of process assessment, evaluate through various aspects such as group discussion evaluation, rush response, the student on stage, and ask the teacher questions, etc., based on the principle of "focusing on participation" to activate the classroom atmosphere, enhance students' classroom participation, and improve learning effect.

Use a combination of process evaluation and one-off evaluation at the end of the period, and highlight the process evaluation to evaluate the relevance of daily teaching. The evaluation of the course of the Python Web framework is divided into two links: First, the operation steps that the students' mark is not understood, that is, it is convenient for students to check and fill in vacancies after class, and it is also convenient for teachers to check the students' knowledge points and better the next time. The design of the teaching content; Second, the students evaluate the teaching, at the end of each class, send a classroom evaluation questionnaire to the students so that the students can evaluate the teaching content, classroom atmosphere, and teachers' overall evaluation. Teachers can adjust classroom activities, teaching methods, and teaching resources by viewing the evaluation results.

Table 1 Python Web framework installation and configuration teaching plan design examples

Project Title	Installation of Python Web Framework.
Teaching class	The students major in E-commerce.
Class hours	3
Teaching objectives	Knowledge objectives: 1. Master the installation and configuration of the Python Web framework environment. 2. Understand several commonly used commands. 3. Familiar with the environment of the Web framework. Skill goals: 1. Ability to install and configure Django Python Web framework environment. 2. Able to solve problems during installation and configuration. Literacy goals: 1. Exercise logical thinking ability and focus on the rigor of thinking. 2. Develop information operation skills.
Teaching focus	Installation and configuration of Python Web framework environment.
Difficulties	The installation and configuration problems of Python Web framework encountered in teaching processing.

Table 2 The design of the Python Web framework installation training task

Training task name	Installation of Python Web Framework.
Framework environment installation and configuration Steps	Training task name Installation of Python Web Framework. 1. Framework environment installation and configuration Steps to install virtual environment: 1. sudo pip install virtualenv #install virtual environment 2. sudo pip install virtualenvwrapper #install virtual environment extension package. 3. Edit the .bashrc file under the home directory and add the following two lines. export WORKON_HOME = $ HOME / .virtualenvs source /usr/local/bin/virtualenvwrapper.sh 4. Make source .bashrc to effective.
Environment use Steps to create a virtual environment:	1. Create a python3 virtual environment: mkvirtualenv -p python3 bj11_py3 2. Enter the virtual environment to work: workon virtual environment name 3. Check how many virtual environments there are on the machine: workon space + two tab keys 3. Exit the virtual environment: deactivate 4. Delete the virtual environment: rmvirtualenv virtual environment name 5. The command to install the package in the virtual environment: pip install package name 6. Check which python packages are installed in the virtual environment: pip list / pip freeze 7. Install django environment: pip install django == 2.0
Auxiliary materials	Training manual.

4. Conclusion

In higher vocational colleges, the main focus of the curriculum design research is on these aspects: professional characteristics, academic characteristics, employment requirements, and teaching environment, teaching activity design, and training content design are not independent but interdependent. Yes, only teaching activities and learning activities designed by integrating various elements can be effective in real teaching. After the end of teaching evaluation design, student evaluation and teaching reflection are indispensable links. The current vocational education needs to make full use of the informatization auxiliary functions provided by the informatization platform, continuously optimize and improve the curriculum design model, continuously improve the quality of the curriculum, and create truly high-quality curriculum.

Acknowledgments

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