

USING THE DJANGO FRAMEWORK FOR E-COMMERCE PROCESSES

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Annotatsiya. Maqolada elektron tijorat jarayonlarini onlayn savdo saytlari ko‘rinishida yaratish uchun veb texnologiyalar asosida dasturlash va unda mashhur freymvorklarning qo‘llanilishi haqida so‘z boradi. HTML kodlari orasida interaktiv ifodalarning, xususan Python dasturlash tili va Django freymvorkining qo‘llanilishi ko‘rsatib o‘tilgan. Shuningdek, Python dasturlash tili asosida ishlovchi Django freymvorki haqida ma’lumotlar berilgan. Django freymvorki tizimida Login sahifasining qo‘llanilishi haqida ham ma’lumot keltirilgan.

Tayanch so‘z va iboralar: *elektron tijorat, raqamli iqtisodiyot, axborot-kommunikatsiya texnologiyalari, onlayn, jinja, shablon, django, freymvork, funksiya, HTML.*

Аннотация. В статье рассказывается о программировании на основе веб-технологий и использовании популярных фреймворков для создания процессов электронной коммерции в виде сайтов интернет-магазинов. Среди HTML-кодов показано использование интерактивных выражений, в частности языка программирования Python и фреймворка Django. Также представлена информация о фреймворке Django на основе языка программирования Python. Платформа Django также предоставляет информацию об использовании страницы входа.

Ключевые слова и фразы: *электронная коммерция, цифровая экономика, информационно-коммуникационные технологии, онлайн, jinja, шаблон, django, фреймворк, функция, HTML.*

Annotation. The article talks about programming based on web technologies and the use of popular frameworks to create e-commerce processes in the form of online shopping sites. Among the HTML codes, the use of interactive expressions, in particular Python programming language expressions, is shown to be created

directly based on Jinja templates. Information about the Django framework based on the Python programming language is also provided. The use of the existing Login page in the Django framework is also provided.

Keywords and phrases: e-commerce, digital economy, information and communication technologies, online, login, template, django, framework, function, HTML.

If you look at today's mass media, you can see many articles about the achievements in the field of information and communication technologies in our country. The increasing level of information transmission of local and international Internet channels in our country also creates the ground for the introduction of an electronic commerce system based on information and communication technologies. In particular, electronic document circulation systems are being introduced, electronic payments are being developed, and the legal framework created in the field of electronic commerce is being improved. In order to implement the Law of the Republic of Uzbekistan "On Electronic Commerce" in our republic, large-scale measures for the further development of electronic commerce using modern information and communication technologies have been implemented. The adoption of e-commerce laws dates back to 2004. The Resolution of the Oliy Majlis of the Republic of Uzbekistan on the implementation of the Law of the Republic of Uzbekistan "On Electronic Commerce" [1] was signed on 29.04.2004 with No. 614-II. The law was later amended in 2004. "On Amendments and Additions to the Law of the Republic of Uzbekistan "On Electronic Commerce" [2] The Law of the Republic of Uzbekistan was adopted. [3]

E-commerce web pages can be created in different ways. It can be created using ready-made platforms. With the WooCommerce plugin on the WordPress platform, with the VirtueMarket platform on the Joomla platform, the OpenCart platform, the OcStore platform, 1cBitrix and many other ready-made solutions can be cited as examples. The advantages of these platforms are that users with no experience in web programming can easily create their own online magazine.[4]

When the online magazine being created is required to be professional, it is necessary to turn to web programming. As one of them, the Django framework working in the Python programming language can be cited as an example.

Django is a free web framework for web applications written in the Python programming language. The design is created based on the MVC template. This project is supported by the Django Software Foundation. Its first version was presented on July 21, 2005.[5]

A site created in the Django framework is created in the form of several applications, which can be disconnected and used. This situation distinguishes it from other frameworks.[6]

Russell Keith-Magee, Adrian Holovaty, Simon Willison, Jacob Kaplan-Moss, Wilson Miner are mentioned as the creators of this framework.

The Django framework is widely used and can be used to build sites in many ways. According to itproger.com, the following websites are built using the Python programming language and the Django framework. YouTube (the world's largest video hosting company owned by Google. It is not necessary to praise the popularity of this site too much), Google Search (Google has been using the Python programming language in its products for a long time. They have a good understanding of the capabilities of this language and try to use it as much as possible They use the Python programming language and the Django framework in their products.), DropBox (It is the world's largest cloud platform. You can store any information there, and synchronize it with computers and other mobile devices.), Instagram (It is the world's largest social network. Users use their can share their photos, videos and other information, participate in likes and other ratings.), Reddit (Reddit is a large social news project site. Users can post articles on various topics, leave comments for them, vote for them t), Pinterest (Pinterest resource is similar to Instagram social network. Here users share their various photos. Only here the user can easily find the pictures he is interested in), Quora (the Quora site is similar to the "Otety Mail.ru" site, where users can find answers to many questions they are interested in.), Yahoo Maps (Yahoo mainly used Node.js in its platform But they also used Python language to work with maps. In the CIS countries, this online map is not very popular, Spotify (find and listen to music for free), Onion (a satirical newspaper website), etc. [7]

What do you need to know when creating a website based on this framework? Given that this framework runs in Python, knowledge of the Python programming language is a must. At the same time, given that this framework is intended for creating websites, it will be useful to have knowledge of HTML and CSS at the minimum level, and in addition - knowledge of JavaScript and PHP.

Class-based views in Django provide abstract classes that perform common web development tasks. They are very versatile and can inherit from Python's object-oriented and classes for further extensibility. This means that it is possible to perform complex tasks using the available capabilities. In Python, a class is defined by the "def" keyword. The body of the class is separated by indents. For example, in C++ or Kotlin programming languages, the function body is separated by curly braces.[8]

In Django, you can display the login page using the LoginView class. In order for the user to enter the system, it is necessary to perform the following actions:

- Get username and password from HTML form;
- User authentication according to the database;
- Check user activity;
- Logging in to the site and starting a session.[9]

This class is imported into the project as follows:

```
from django.contrib.auth.views import LoginView
```

A diagram of this class is presented in Figure 1.

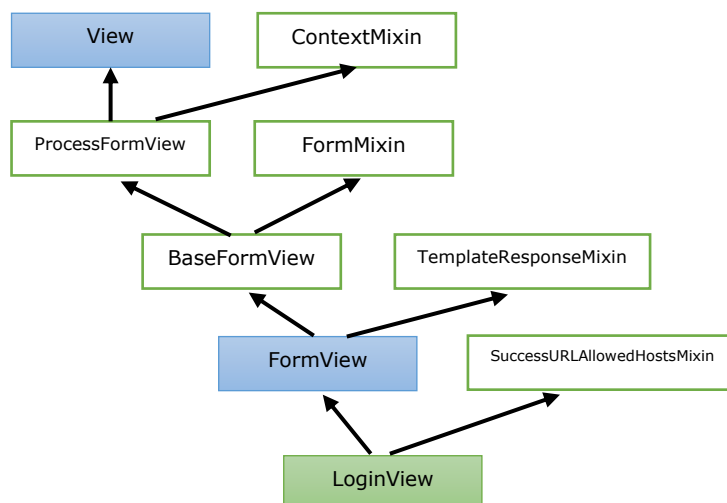


Figure 1. LoginView class diagram in Django.

This class has several attributes and methods. For example, let's take the "dispatch" function. It contains the following program in the LoginView section:

```

@method_decorator(sensitive_post_parameters())
@method_decorator(csrf_protect)
@method_decorator(never_cache)
def dispatch(self, request, *args, **kwargs):
    if self.redirect_authenticated_user and
self.request.user.is_authenticated:
        redirect_to = self.get_success_url()
        if redirect_to == self.request.path:
            raise ValueError(
                "Redirection loop for authenticated user detected. Check that "
                "your LOGIN_REDIRECT_URL doesn't point to a login
page."
            )
        return HttpResponseRedirect(redirect_to)
    return super().dispatch(request, *args, **kwargs)
    
```

And in the "View" section there is the following code:

```

def dispatch(self, request, *args, **kwargs):
    # Try to dispatch to the right method; if a method doesn't exist,
    # defer to the error handler. Also defer to the error handler if the
    # request method isn't on the approved list.
    if request.method.lower() in self.http_method_names:
        handler = getattr(self, request.method.lower(),
self.http_method_not_allowed)
    else:
        handler = self.http_method_not_allowed
    return handler(request, *args, **kwargs)
    
```

E-commerce sites created using the Django framework are characterized by reliability in many ways. Many libraries created for this framework help to expand its capabilities. The programmer just needs to know how to use them. At the same time, the issue of integration of payment systems for e-commerce sites has a special place. The integration of the existing payment systems operating in our republic into the site ensures that the current site will be more interactive.

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