

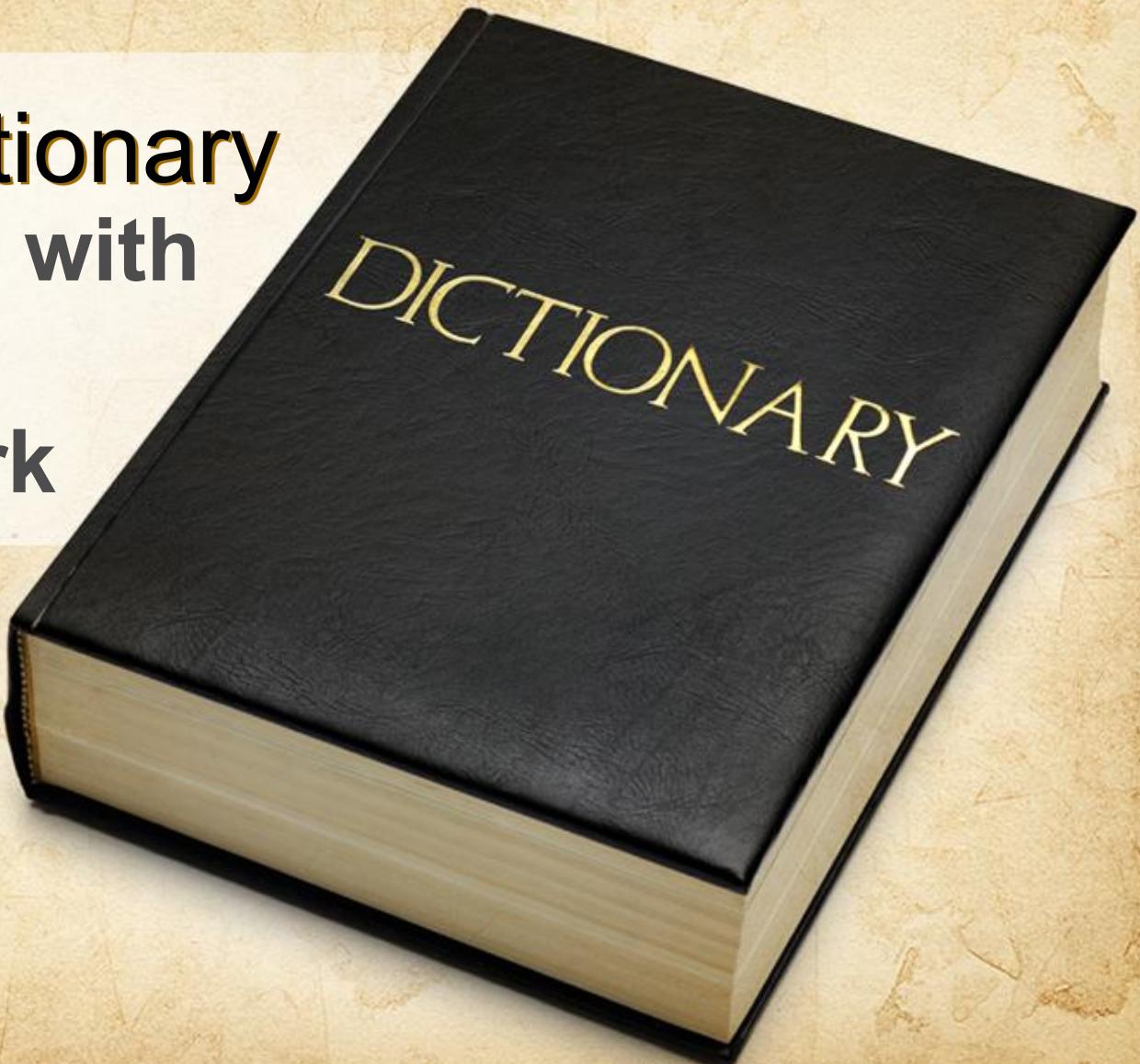


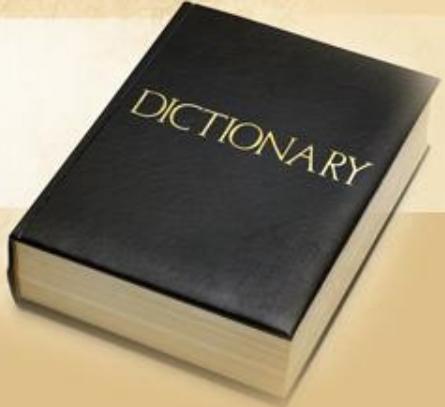
الجامعة الإسلامية شيت غونج
International Islamic University Chittagong

Dept. of Computer Science & Engineering

- **Semester:** 6th
- **Section:** 6AF
- **Course Code:** CSE-3638 + CSE-3640
- **Course Title:** Software Engineering & Software Development Lab

English Dictionary using Python with Django Framework





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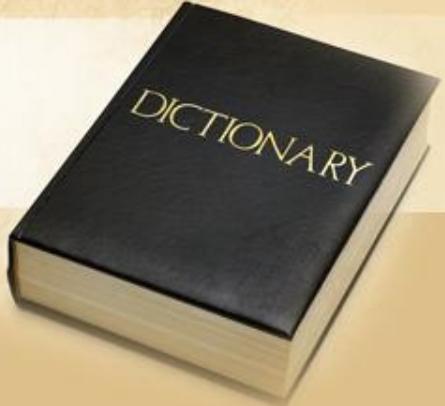
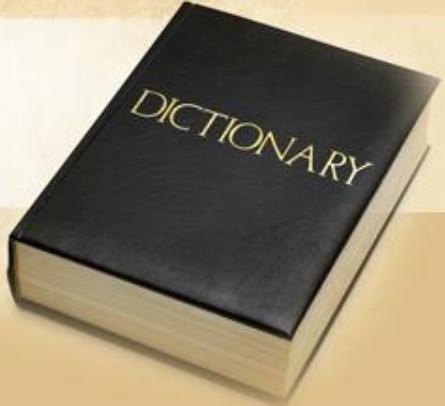


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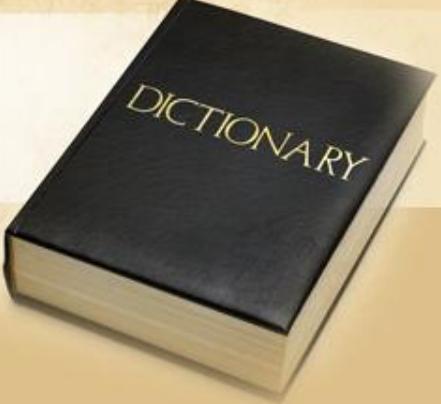


Introduction

- **What is Django?**

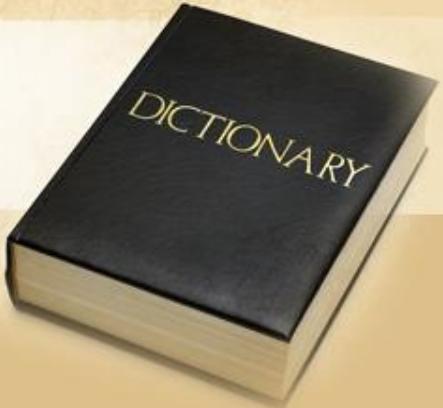
Django is a high-level Python web framework that enables rapid development of secure and maintainable websites.

The Django web framework is a free, open source framework that can speed up development of a web application being built in the Python programming language. It is used for backend web application.



Technology Description

- Python programming language
- HTML
- Django web framework
- PyDictionary module
- PyCharm
- Google Chrome for run the server



Developing Procedure

1. Creating new directory
2. Creating virtual environment
3. Activating virtual environment
4. Creating the project and application
5. Installing Django

```
Command Prompt x + 
Microsoft Windows [Version 10.0.22621.1848]
(c) Microsoft Corporation. All rights reserved.

C:\Users\asus>cd documents

C:\Users\asus\Documents>mkdir dictionary

C:\Users\asus\Documents>cd dictionary

C:\Users\asus\Documents\dictionary>py -m venv venv

C:\Users\asus\Documents\dictionary>venv\scripts\activate.bat

(venv) C:\Users\asus\Documents\dictionary>pip install django
Collecting django
  Using cached Django-4.2.2-py3-none-any.whl (8.0 MB)
Collecting asgiref<4,>=3.6.0
  Using cached asgiref-3.7.2-py3-none-any.whl (24 kB)
Collecting sqlparse>=0.3.1
  Using cached sqlparse-0.4.4-py3-none-any.whl (41 kB)
Collecting tzdata
  Using cached tzdata-2023.3-py2.py3-none-any.whl (341 kB)
Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.7.2 django-4.2.2 sqlparse-0.4.4 tzdata-2023.3

[notice] A new release of pip available: 22.3.1 -> 23.1.2
[notice] To update, run: python.exe -m pip install --upgrade pip

(venv) C:\Users\asus\Documents\dictionary>python.exe -m pip install --upgrade pip|
```

```
settings.configure() before accessing settings.).

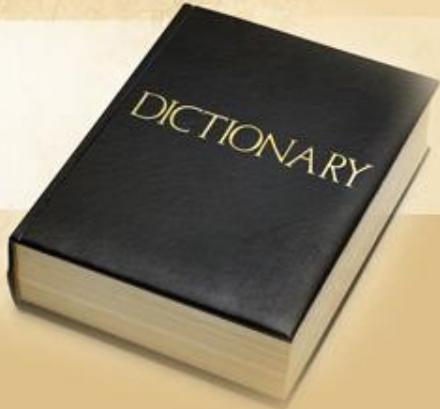
(venv) C:\Users\asus\Documents\dictionary>django-admin startproject dictionary

(venv) C:\Users\asus\Documents\dictionary>cd dictionary

(venv) C:\Users\asus\Documents\dictionary\dictionary>python manage.py startapp englishdictionary

(venv) C:\Users\asus\Documents\dictionary\dictionary>
```

Developing Procedure



6. Successfully run server

A screenshot of a web browser window. The address bar shows the URL `127.0.0.1:8000`. The page title is "django". On the right, there is a link to "View [release notes](#) for Django 4.2". The main content features a green rocket ship icon launching from a white cloud. Below the icon, the text "The install worked successfully! Congratulations!" is displayed. Underneath that, a smaller note says: "You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs." At the bottom of the page, there are links to "Django Documentation", "Tutorial: A Polling App", and "Django Community".

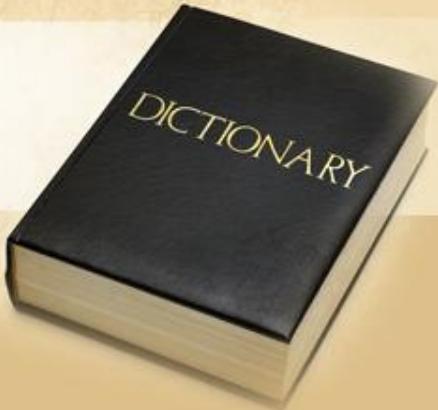
The install worked successfully! Congratulations!

You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs.

[Django Documentation](#) [Tutorial: A Polling App](#) [Django Community](#)

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Developing Procedure



7. Setting up the App in the Project Folder
8. Configuring the App URLs
9. Creating Views
10. Creating the HTML Templates
11. Integrating the Word Search Functionality

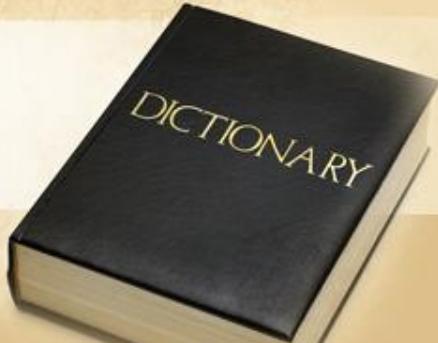
The screenshot shows a code editor interface with the following details:

- Project Structure:** The project is named "englishdictionary". It contains a main directory "englishdictionary" and an app directory "dictionary". The app directory "dictionary" contains files like migrations, admin.py, apps.py, models.py, tests.py, urls.py, and views.py. It also contains a "templates" folder with files dictionary.jpg, home.html, and word.html.
- urls.py Content:** The "urls.py" file in the "views" folder is shown with the following code:

```
from django.urls import path
from . import views

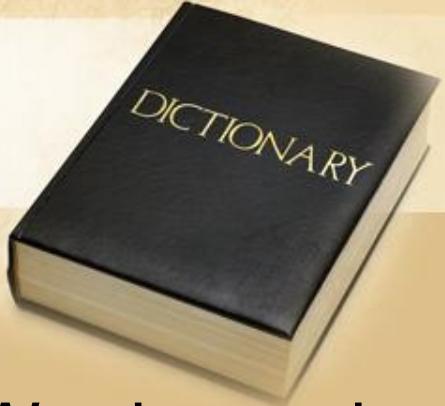
urlpatterns = [
    path('', views.home),
    path('word', views.word)
```
- Terminal:** A terminal window is open at the bottom, showing the command "python manage.py runserver".
- Status Bar:** The status bar at the bottom right indicates "72 CRLF UTF-8 4 spaces Python 3.9 (englishdictionary) (2)".

Results



Home page

A screenshot of a web browser window displaying the "English Dictionary" home page. The browser has two tabs both titled "English Dictionary". The address bar shows the URL "127.0.0.1:8000". The main content area features a logo of an open book with red and blue highlights, followed by the text "English Dictionary". Below this is a search interface with a blue header labeled "Dictionary", a search input field containing "Enter a word to search", and a blue "SEARCH" button. The background of the page is a light blue gradient. At the bottom of the screen, the Windows taskbar is visible, showing various pinned icons and the system tray with battery level, temperature (30°C Haze), and date/time (14/06/2023).



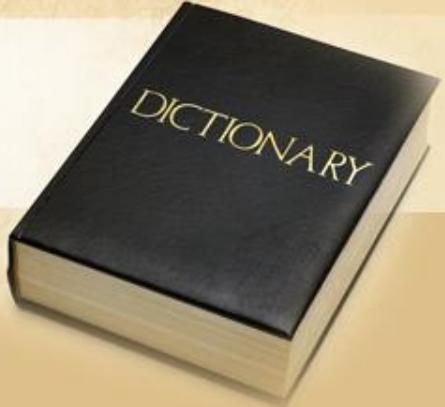
Result

- 1. Word search

A screenshot of a web browser window titled "English Dictionary". The main content area has a blue header bar with the word "Dictionary" and a magnifying glass icon. Below this is a search input field containing the text "dictionary" and a blue "SEARCH" button. The background of the page is white.

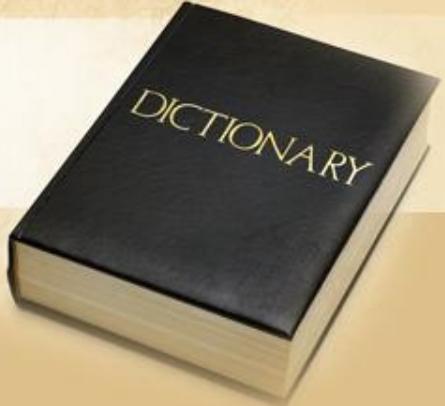
- 2. And Show the meaning

A screenshot of a web browser window titled "English Dictionary". The main content area shows a search input field with the placeholder "Enter a word to search" and a blue "SEARCH" button. Below the input field, there is a text box containing the definition: "Meaning: a reference book containing an alphabetical list of words with information about them". The background of the page is blue.



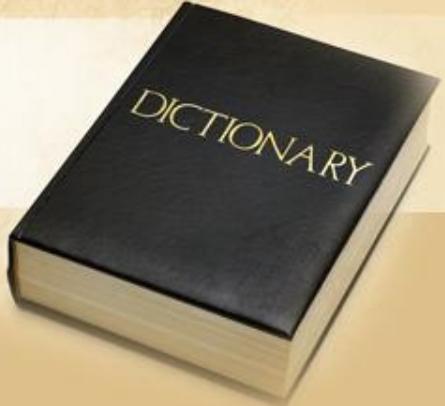
Limitations

- Inaccurate or outdated data can be displayed in the app, which can affect the user experience
- The app is designed to provide only the basic information about an English word, such as its meaning.
- The app is built for a small-scale project, and it might not be suitable for larger-scale applications.



Future Scope

- Advanced Search and Filtering.
- User Profiles and Customization.
- Audio Pronunciations.
- Mobile Applications and API Integration.
- Natural Language Processing Enhancements.



Thank You