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1. Why Django should be used for web-development? Explain how you can create a project in Django?

Django is a full-stack web framework that is open-sourced and follows an MVT (Model View Template) type of architecture.

It is comprised of a set of components and modules that aids in faster development and is used by a few of the world's top companies like Instagram, Mozilla, Spotify, Quora, YouTube, Reddit, Pinterest, Dropbox, bitly, Google, Disqus, etc.

Today we are going to discuss why is Django is the most loved, preferred, and believed to be the best framework for web development.

To create first django project:

create a new Django project and app from scratch, follow these steps:

Step 1: Install Django Ensure you have Python installed on your system. Open a terminal or command prompt and use pip to install Django:

```
pip install django
```

Step 2: Create a new Django project In the terminal, navigate to the directory where you want to create your Django project. Use the following command to create a new project:

```
django-admin startproject projectname
```

Replace projectname with the desired name of your Django project. This command will create a new directory with the project structure.

Step 3: Navigate to the project directory Change to the newly created project directory

```
cd projectname
```

Step 4: Create a new Django app Django projects are composed of multiple apps. To create a new app, run the following command:

```
python manage.py startapp appname
```

Replace appname with the desired name of your Django app. This command will create a new directory containing the app's structure.

Step 5: Register the app in settings Open the settings.py file inside your project's directory and add the name of the app to the INSTALLED_APPS list:

```
INSTALLED_APPS = [
```

```
    # other apps...
```

```
    'appname',
```

```
]
```

Step 6: Define a model (optional) Inside your newly created app's directory, you can define models in the models.py file. Models represent your application's data structure and are the foundation of Django's ORM (Object-Relational Mapping).

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Step 7: Create the database table Run the following command to create the database table(s) for your models:

```
python manage.py makemigrations
```

```
python manage.py migrate
```

Step 8: Create a view and template (optional) Views are Python functions that handle HTTP requests and return HTTP responses. You can create a view and associated HTML templates inside your app's directory.

Step 9: Configure URLs In your app's directory, create a file named `urls.py`. Define the URL patterns for your app's views.

Step 10: Run the development server To test your Django project, run the development server using the following command:

```
python manage.py runserver
```

Visit `http://127.0.0.1:8000/` in your web browser, and you should see the Django welcome page.

That's it! You've now created a new Django project and app from scratch. You can continue building your web application by adding more models, views, templates, and customizing settings as needed.

2. How to check installed version of django?

Simply type `python -m django --version` or type `pip freeze` to see all the versions of installed modules including Django.

3. Explain what does django-admin.py make messages command is used for?

Some `--django-admin` commands

Django provides several `django-admin` commands that can be used to manage Django projects and perform various administrative tasks. Besides, you can create your own custom management commands to perform specific tasks unique to your Django project.

Here are some commonly used `django-admin` and `manage.py` commands:

`startproject`: Creates a new Django project.

```
django-admin startproject project_name
```

4. What is Django URLs?make program to create django urls?

In Django, URLs (Uniform resource locators) specify how incoming requests are translated to view functions or classes for processing and producing responses.

These patterns are defined in the project's URL configuration file (`urls.py`).

A Django web application relies heavily on URLs to route and handles several endpoints, enabling users to access different pages or resources depending on the requested URL. In your Django app, create a new Python module called `urls.py` if it doesn't already exist. Inside this file, you will define all the URL

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patterns for this specific app. To do this, you need to import the necessary modules, create a variable called `urlpatterns`, and add the URL patterns to it.

5. What is a QuerySet? Write program to create a new Post object in database:

A QuerySet is a collection of data from a database. A QuerySet is built up as a list of objects. QuerySets makes it easier to get the data you actually need, by allowing you to filter and order the data at an early stage.

6. Mention what command line can be used to load data into Django?

To load data into Django you have to use the command line `Django-admin.py loaddata`.

The command line will search the data and loads the contents of the named fixtures into the database.

7. Explain what does `django-admin.py make messages` command is used for?

`django-admin makemessages`

Runs over the entire source tree of the current directory and pulls out all strings marked for translation. It creates (or updates) a message file in the `conf/locale` (in the Django tree) or `locale` (for project and application) directory. After making changes to the messages files you need to compile them with `compilemessages` for use with the builtin gettext support.