

# DB and Python Framework - Module 5

## Assignment

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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 high-level Python web framework that encourages rapid development and clean, pragmatic design. It follows the 'Don't Repeat Yourself' (DRY) principle and the 'Convention Over Configuration' philosophy. Django is secure, scalable, and comes with many built-in features such as an admin interface, authentication, and ORM, making it a popular choice for web development.

To create a project in Django, follow these steps:

1. Install Django: `pip install django`
2. Create a project: `django-admin startproject project_name`
3. Run the server: `python manage.py runserver`

### 2. How to check installed version of Django?

To check the installed version of Django, run the following command in your terminal:

```
python -m django --version
```

### 3. Explain what `django-admin.py makemessages` command is used for?

The `django-admin.py makemessages` command is used to extract all the translatable strings from your code and create message files that can be translated into different languages. It's a key part of the localization process in Django.

### 4. What is Django URLs? Make a program to create Django URLs.

In Django, URLs map web addresses to views. A `URLconf` is like a table of contents for your Django app, defining which view should handle a given URL pattern.

Example of Django URLs:

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

```
urlpatterns = [
    path("", views.index, name='index'),
    path('product/<int:id>/', views.product_detail, name='product_detail'),
]
'''
```

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

A QuerySet is a collection of data from a database. In Django, a QuerySet allows you to read, filter, and manipulate data from the database.

Example of creating a new Post object:

```
'''python
from .models import Post

post = Post(title='New Post', content='This is a new post.')
post.save()
'''
```

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

The following command can be used to load data into Django from a fixture file (in JSON, XML, or YAML format):

```
`python manage.py loaddata fixture_name`
```

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

The `django-admin.py makemessages` command is used for internationalization, enabling translation of content in a Django project. It scans the project for translatable strings and prepares message files (.po) that can be used to translate the project into different languages.