

## Question 1

HTTP is a stateless protocol which means that each request is independent and doesn't remember past actions. To keep a user logged in or store data between requests, web apps use **session management** generally via **cookies**. When a user logs in, the server creates a **session**, stores information like their user ID, and sends a session ID back as a **cookie**. On subsequent requests, the web browser sends this cookie so the server can identify the user. With this method, the web application maintains continuity regarding login states, shopping carts and other personalized user settings, despite HTTP being a stateless protocol. Since Django has built-in tools for sessions and authentication, it makes for an easy and simple choice to get apps up and running fast.

## Question 2

In Django, database changes are handled by the migrations system. To use MariaDB with Django, edit the settings.py to use **django.db.backends.mysql** and add database details. It is also required to install a DB API and an adapter to access the database drivers from its ORM (Object-Relational Mapping). The recommended option is to install the **mysqlclient** package. Once installed, run **python manage.py makemigrations** to create migration files. Then run **python manage.py migrate** to apply them to MariaDB. This process translates the Django models into corresponding tables and schema within MariaDB. Django's migration framework also supports versioning and rolling back changes, making database schema management consistent and safe across development and production.