



SOFTWARE ENGINEER QUALIFICATION ASSIGNMENT

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Entry-level software engineer

1. Project Background and Description

i A RESTful API application to store and track the running sessions.

2. Technologies

- i**
- *Python*
 - *Django*
 - *SQLite*
 - *Django Rest Framework*

3. Defining the RESTful web service

HTTP Verb	Scope	Semantics	URI
POST	User Login	Get the Authentication token by	/sessions/login
POST	User Logout	End user session	/sessions/logout
GET	Collection of running sessions	Retrieve all the running session that belong to a specific user	/sessions
POST	Running session	Create a new running session in the collection	/sessions
GET	Running session speed	Retrieve the speed of the	/sessions/id

		running session	
GET	Total distance	Retrieve the total distance runs over all running sessions	/session/totaldistance
GET	Average speeds	Retrieve average speed run over all running sessions	/sessions/average speed

4. Test cases scenarios

i The following preliminary test cases that will be used to implement the automated test

TITLE: LOGIN TEST CASE.

Summary: This test case checks the user can get his token by inserting a valid user name and password.

Test cases:

- Login using valid username and password
- Login using invalid username or password

TITLE: GET RUNNING SESSIONS CASE.

Summary: This test case checks the user can get his collection in case he has the permission

Test cases:

- Get the collection with authenticated user
- Get the collection without authentications

TITLE: POST RUNING SESSIONS CASE.

Summary: This test case checks the user can post a running session in case he has the permission

Test cases:

- Post a new running session with authentications
- Post running session without authentications

TITLE: GET RUNNING SESSION SPEED CASE.

Summary: This test case checks the user can get specific session speed in case he has the permission

Test cases:

- Get the speed with authenticated user
- Get the speed without authentications

TITLE: GET TOTAL DISTANCE

Summary: This test case checks the user can get the total distance in case he has the permission

Test cases:

- Get the total distance with authenticated user
- Get the total distance without authentications

TITLE: GET AVERAGE SPEEDS

Summary: This test case checks the user can get the speeds average in case he has the permission

Test cases:

- Get the average speeds with an authenticated user
- Get the average speeds without authentications