

# Eastern Oregon University

## Interface Specification Document

Green Team

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# 1. Introduction

The purpose of this document is to provide a guide to the REST API queries available in the Wordle game. This document includes detailed descriptions of each query, the parameters required, the expected responses, and instructions on how to connect to and interact with the API.

## 2. API Queries

### Create New Session

To initiate a new game session, the query `/new_session` is used with the POST method. This query does not require any request parameters. Upon receiving a request, the server establishes a connection to the MySQL database, generates unique session and user IDs, and selects a random word from the `valid_words` table to serve as the solution word for the game session. The server then inserts a new record into the `game_sessions` table with the generated session ID, user ID, and solution word. If the operation is successful, the server responds with a Created status and a JSON object containing the session ID, user ID, and solution word. If no valid words are found in the database, the server returns a 500 Internal Server Error status along with a JSON object that includes an error message.

### Guess Word

The second query, `/guess_word`, also uses the POST method. This query checks a user's guessed word against the solution word for a specific game session. The request must include a JSON body with the fields `session_id`, `user_id`, and `guessed_word`. The server retrieves the solution word associated with the provided session and user IDs from the `game_sessions` table. It then checks whether the guessed word exists in the `valid_words` table and compares it to the solution word. The server responds with an OK status if the session is valid, including a JSON object that indicates whether the guessed word is "invalid", "correct", or "incorrect", along with the solution word. If the session is not found or is invalid, the server responds with a 404 Not Found status and a JSON object containing an error message.

## 3. Connection Guide

1. Ensure MySQL Database is Running: Verify that your MySQL database is running and accessible with the provided database configuration.
2. Run the Flask Application: Start the Flask server by running the Flask application script.
3. Make HTTP Requests: Use the JavaScript frontend to make HTTP requests to the queries provided.

## 4. Error Handling

All queries are designed to return appropriate HTTP status codes and descriptive error messages in case of failures, ensuring clear communication about the nature of any issues encountered.

## 5. Conclusion

This document outlines the comprehensive details of the REST API for the Wordle Game. By following the guidelines and examples provided, we have integrated and utilized the API to create an engaging user experience. The clear structure and error handling mechanisms ensure reliable interactions with the game's backend.