

## User-Server-App Interaction

**User Initiates Prediction Process:** The process begins when the user triggers the prediction process by clicking a designated button on the application's interface.

**Model Selection:** Upon initiation, a dialog window opens, prompting the user to select an existing model from the available options.

**Confirmation of Model Choice:** After selecting a model, the user confirms their choice, indicating readiness to proceed with the selected model.

**Label Encoder Selection:** Subsequently, another dialog window appears, enabling the user to choose a label encoder from the provided options.

**Confirmation of Encoder Choice:** Similar to the model selection, the user confirms their choice of label encoder, finalizing the encoder selection process.

**Algorithm Selection:** The user then selects the desired algorithm for prediction from a pre-defined list of algorithms provided by the application.

**Confirmation of Algorithm Choice:** Upon selection, the user confirms their choice of algorithm, affirming their decision to use the selected algorithm for prediction.

**CSV File Selection:** Next, the user chooses a previously uploaded CSV file from a list of available files within the application.

**Initiation of Prediction:** After selecting the CSV file, the user triggers the prediction process by clicking the designated "predict" button on the application interface.

**HTTP Request to Server:** Following the user's action, the application sends a HTTP request containing the necessary data to the '/predict\_supervised' endpoint on the server.

**Processing of Request:** The server endpoint processes the received request, utilizing the selected model, encoder, algorithm, and input data to generate a prediction.

**Return of Prediction:** Upon processing, the server sends back the predicted result to the application.

**Visualization on GUI:** Finally, the predicted result is plotted onto the graphical user interface (GUI) of the application, providing the user with a visual representation of the prediction outcome.

