Consider the definitions (between <definitions>

</definitions>) of step and task of analysis scenarios.

<definitions>

An analysis scenario is composed of steps and each step is accomplished through a series of tasks. You can think of a step as a macro-group of affine tasks.

</definitions>

I will provide you with a textual description corresponding to an analysis scenario. Suggest me the steps I have to perform. Enclose the ordered list of steps between <steps></steps>. Do not detail the tasks of each step. I will ask you about them later.

Base your answer only on the analysis scenarios provided in the given context: <context>**{context}**</context>

Analysis scenario:

I have to read a database table, containing 10 columns: 1 column for the record ID, 1 column for the variable short name, 1 column for a timestamp value, 6 columns containing electrical current values and a column containing torque values (in Newton meter) collected from a smart machine engine.

The columns containing the record ID and the variable short name are not required for the next analysis steps.

I want to use the 6 columns containing electrical current values for building a LASSO regression model and the torque has to be the prediction target for the model.

Afterwards, I want to compare the predicted torque values with the real values.

Based on the provided analysis scenarios, here are the steps you should perform for your described analysis scenario:

<steps>

<Step id="1" name="Data collection">

<!-- Tasks related to reading the database table and selecting relevant columns -->

</Step>

<Step id="2" name="Data preprocessing">

<!-- Tasks related to preprocessing the data, such as removing unnecessary columns -->

</Step>

<Step id="3" name="Feature selection">

<!-- Tasks related to selecting features for the LASSO regression model -->

</Step>

<Step id="4" name="Model training">

<!-- Tasks related to training the LASSO regression model -->

</Step>

<Step id="5" name="Prediction">

<!-- Tasks related to predicting torque values using the trained model -->

</Step>

<Step id="6" name="Comparison">

<!-- Tasks related to comparing predicted torque values with real values -->

</Step>

</steps>

Now you can proceed with detailing the tasks for each step.

Consider the definitions (between <definitions>

</definitions>) of step and task of analysis scenarios.

Given the list of steps (enclosed between <steps>

</steps>) detail the tasks to be executed to accomplish the step with id="4" and name="Model training".

Enclose the ordered list of tasks between <tasks></tasks>.

<steps>

<Step id="1" name="Data collection">

<!-- Tasks related to reading the database table and selecting relevant columns -->

</Step>

<Step id="2" name="Data preprocessing">

<!-- Tasks related to preprocessing the data, such as removing unnecessary columns -->

</Step>

<Step id="3" name="Feature selection">

<!-- Tasks related to selecting features for the LASSO regression model -->

</Step>

<Step id="4" name="Model training">

<!-- Tasks related to training the LASSO regression model -->

</Step>

<Step id="5" name="Prediction">

<!-- Tasks related to predicting torque values using the trained model -->

</Step>

<Step id="6" name="Comparison">

<!-- Tasks related to comparing predicted torque values with real values -->

</Step>

</steps>

Base your answer only on the analysis scenarios provided in the given context: <context>**{context}**</context>

Sure, here are the tasks to accomplish the step with id="4" and name="Model training" based solely on the provided context

<tasks>

<Task id="1" name="Create dataset with electrical current values and torque">

<!-- Task details: Extract the relevant columns (electrical current values and torque) from the preprocessed data -->

</Task>

<Task id="2" name="Split dataset">

<!-- Task details: Split the dataset into training and testing sets -->

</Task>

<Task id="3" name="Normalize data">

<!-- Task details: Normalize the features to ensure they have similar scales -->

</Task>

<Task id="4" name="Train LASSO regression model">

<!-- Task details: Train the LASSO regression model using the training data -->

</Task>

</tasks>