Prompt Template 1 - Find a service for a single task

Referring to **[atomic service type]** from the RAG system as Context, please provide an Answer to the Question below.

Question: Within the scope of **[atomic service type]** please find a service for **[task] [input dataset]**|**[input_datasource]**
Answer:

Example
Referring to **Collect services** from the RAG system as Context, please provide an Answer to the Question below.

Question: Within the scope of **Collect services** please find a service for **reading the content of a CSV file**.
Answer:

Prompt Template 2 - Find the services to accomplish a whole scenario

Referring to Atomic Data Services from the RAG system as Context, please suggest suitable services to address each of the steps below.

(1..*) Datasource *i*: **[input_datasource_description]**

I need services to perform the following steps.

(1..*) STEP *j*: A Collect service for **[task]** on **[input_datasource]** by **[Projection] [Selection]** **[additional info for service]**

(0..*) STEP j: A Dispatch service for **[task]** on **[input_dataset]** by **[Projection] [Selection] [Aggregation] [Transformation]** **[additional info for service]**

(0..*) STEP j: A Monitor service for **[task]** on **[input_dataset]** by **[Projection] [Selection] [Aggregation] [Transformation]** **[additional info for service]**

Example

Referring to Atomic Data Services from the RAG system as Context, please suggest suitable services to address each of the steps below.

Given
Datasource 1: **CSV file with 31 columns, including a row ID, timestamp, 28 temperature values, and X axis displacement values from a sensorized spindle on a working center machine**

I need services to perform the following steps.

STEP 1: A Collect service for **reading the content** of **Datasource 1** by **excluding the row ID column**

STEP 2: A Monitor service for **building a multiple linear regression model** on **the dataset obtained from STEP 1** by **considering the 28 temperature features as input for the model and the displacements feature as target** **producing as output only the two columns regarding the original and the predicted displacements**

STEP 3: A Monitor service for **comparing the original and predicted displacements** on **the dataset obtained from STEP 2**

Prompt Template 3 - Same as Prompt Template 2, with the addition of the definition of Atomic Data Services

Here is the complete definition of atomic services:

Atomic services are of three types, namely COLLECT, DISPATCH and MONITOR (the type of service corresponds to the "x-service-type" OpenAPI property):
- COLLECT services are used to read data from data sources (e.g., files, databases, datastores). The only two operations available for a collect service are projection of attributes or selection of values according to a boolean expression. A COLLECT service produces as output a dataset containing the data read from the data source.

- DISPATCH services are used to share (e.g., between the actors of a supply chain) and manipulate the input dataset. Operations available for a collect service are projection of attributes, selection of values according to a boolean expression, application of an aggregation function (e.g., MIN, MAX, AVG) to the input dataset, application of a transformation function (e.g., format conversion) to the input dataset. It receives as input a dataset and produces as output a dataset.
- MONITOR services implement three types of analysis algorithms: classification models (the output is a dataset containing the original data with an additional label for each row representing the outcome of the classification), prediction models (the same as for classification models, but in this case the prediction is not a label but a continuous value for each row) or to perform threshold-based comparison of data (for each attribute, a given boolean expression is tested, and the truth value for each attribute is appended at the end of each row).

Referring to Atomic Data Services from the RAG system as Context and the definitions of Atomic Data Services, please suggest suitable services to address each of the steps below.

Given

(1..*) Datasource *i*: **[input_datasource_description]**

I need services to perform the following steps.

(1..*) STEP *j*: A Collect service for **[task]** on **[input_datasource]** by **[Projection] [Selection]** **[additional info for service]**

(0..*) STEP j: A Dispatch service for **[task]** on **[input_dataset]** by **[Projection] [Selection] [Aggregation] [Transformation]** **[additional info for service]**

(0..*) STEP j: A Monitor service for **[task]** on **[input_dataset]** by **[Projection] [Selection] [Aggregation] [Transformation]** **[additional info for service]**

Prompt Template 4 - Derived from Prompt Template 1 by adding also the user role/skills

I am a **[user role/skills]**. Referring to **[atomic service type]** from the RAG system as Context, please provide an Answer to the Question below.

Question: Within the scope of **[atomic service type]** please find a service for **[task] [input dataset]**|**[input_datasource]**
Answer:

Example
I am a **data analyst with a consolidated proficiency in programming**. Referring to **Collect services** from the RAG system as Context, please provide an Answer to the Question below.

Question: Within the scope of **Collect services** please find a service for **reading the content of a CSV file**.
Answer:

Prompt Template 5 - Derived from Prompt Template 2/Template 3 by adding also the user role/skills
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