## Solution Engineering Home Assignment

## Part 1 (UI and preparation):

- 1. Create a demo account on the Dataloop platform <a href="https://console.dataloop.ai/">https://console.dataloop.ai/</a>
- 2. Create a project
- 3. Create a dataset
- 4. Upload up to 10 images of your choice into the dataset (you can use Google Images or any free data source you may find)
- 5. Create a basic Recipe for this dataset. Make sure to use Labels and Attributes that have relevance to the data presented.
- 6. Annotate the images with tools of your choice. Try and use at least 2 types of annotation tools.

You may refer to the <u>Dataloop documentation</u> for technical tips and guidance. In addition to the steps listed above, select any other feature you'd like and add it into the flow.

## Part 2 (SDK):

- 1. Install dataloop SDK
- 2. Create a script that does the following:
  - a. Create new dataset
  - b. Add 2 labels to the dataset recipe (class1 and class2 and key)
  - c. upload directory with 5 images
  - d. Add a UTM metadata to an item user metadata collection time {collected:<the current time in UTM timestamp>}
  - e. Add a classification of class1 to the first two of the images you uploaded
  - f. Add a classification of class2 to the rest of the images you uploaded
  - g. Add 5 random key points with the label "key" to one item
- 3. Create a query that selects only image items that have been labeled as "class1"
- 4. Create a guery that retrieves all point annotations from the dataset