



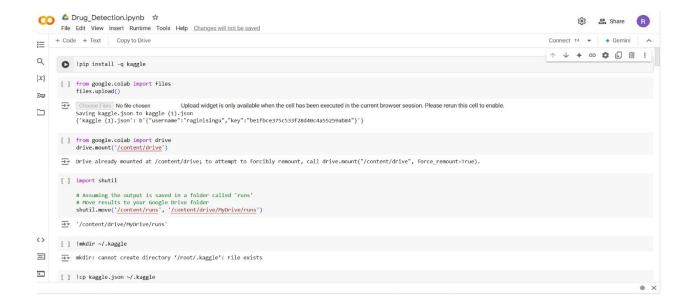
Model Development Phase Template

Date	15 March 2024
Team ID	740050
Project Title	YOLOChemDetect safeguarding with Automated Drug Name Detection
Maximum Marks	10 Marks

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

Initial Model Training Code (5 marks):







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```
| import warnings
| warnings.filterwarnings('ignore')
| Ipip install ultralytics import YOLO
| model=YOLO('yolowan.pt')
| creating new Ultralytics settings with 'yolo settings' or at '/root/.config/Ultralytics/settings.json'
| Update Settings with 'yolo settings key-value', i.e. 'yolo settings runs_dir-path/to/dir'. For help see https://docs.ultralytics.com/quickstart/#ultralytics-settings.
| Downloading https://github.com/ultralytics/assets/releases/download/v8.2.0/yolow8n.pt to 'yolow8n.pt'...
| from ultralytics import YOLO
| model=YOLO('yolow8n.pt')
| import os | import yamal | import glob | import random | import numby as pt | import pandas as pt | import seaborn as sns | import torch | from ultralytics import YOLO | import torch | import market | import pandas as pt | import pandas | import pandas
```

```
+ Code + Text | Copy to Drive
                                                                                                                                                                                                                                                                                                                                                                                               [ ] import torch
from torchvision.models.detection import fastercon_resnet50_fpn
from torchvision.transforms import functional as F
                          from PIL import ImageDraw
from torchvision.transforms import ToTensor
from torch.utils.data import Dataset,DataLoader
                         from tqdm import tqdm
1
            [ ] result = model.train(data="<u>/content/data.yaml</u>",epochs=50,save_period=10,seed=seed,name="yolo8n")
             arguments
[3, 16, 3, 2]
[16, 32, 3, 2]
[32, 32, 1, True]
[32, 64, 3, 2]
[64, 128, 3, 2]
[128, 128, 2, True]
[128, 256, 3, 2]
[256, 256, 1, True]
[256, 256, 1, True]
[31, 128, 2, "nearest"]
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                                                                                            params module
464 ultralytics.nn.modules.conv.conv
4672 ultralytics.nn.modules.conv.conv
7360 ultralytics.nn.modules.block.C2f
18560 ultralytics.nn.modules.block.C2f
73984 ultralytics.nn.modules.block.C3f
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[1]
[192, 64, 1]
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ultralytics.nn.modules.conv.Concat
ultralytics.nn.modules.block.C2f
                                                               [-1, 4]
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${\bf Model\ Validation\ and\ Evaluation\ Report\ (5\ marks):}$

Model	Summary	Training and Validation Performance Metrics
YOLOV8 N	So openis ceptical in 0.400 horor, opinistic stripped from nonicentrifylatant/acquitistic stripped from nonicentrifylatant/acquitistic stripped from nonicentrifylatant/acquitistics, i.e., 2000 qualitatic stripped from nonicentrifylatant/acquitistics, i.e., 2000 qualitatic production of the control of the	Screenshot of the training and validation performance metrics (output of the model.fit()).