

Arshnoor Singh
102317161

Assignment 11

Project Report – LandingLens Object Detection

Project Title:

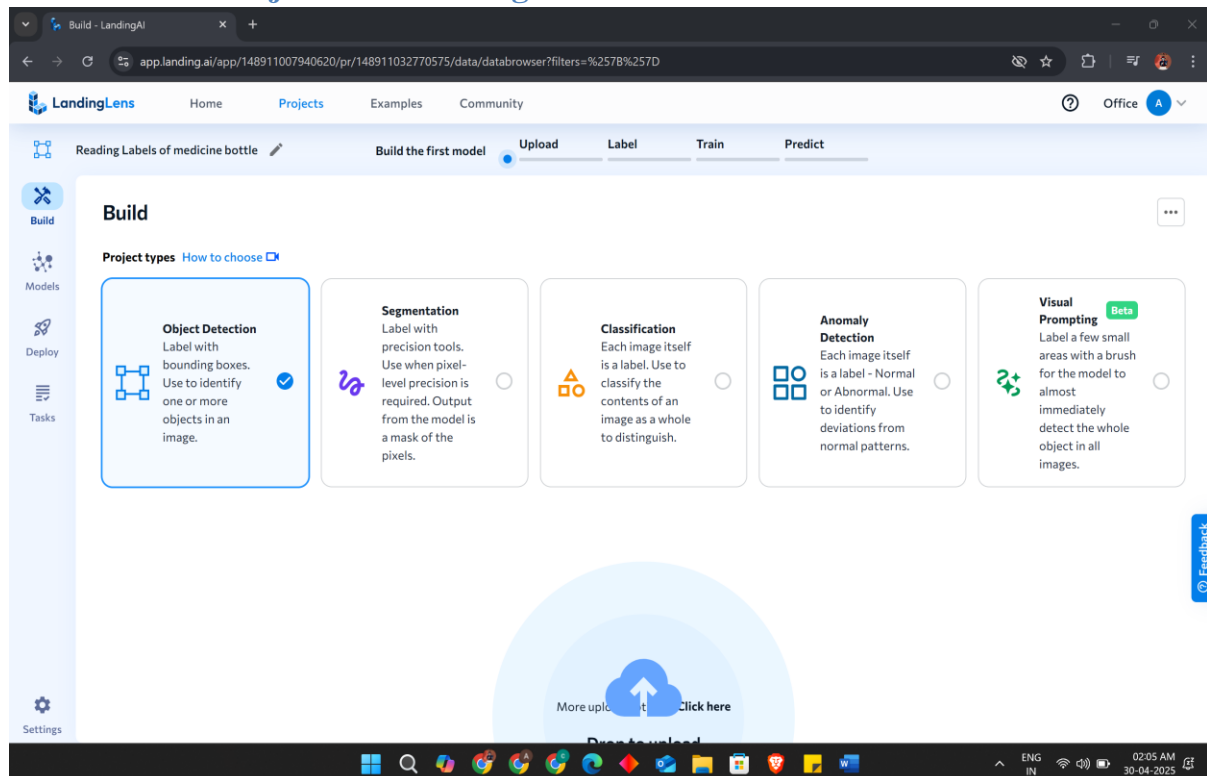
Cognitive Assistant for Reading Labels of Medicine Bottles

Project Idea:

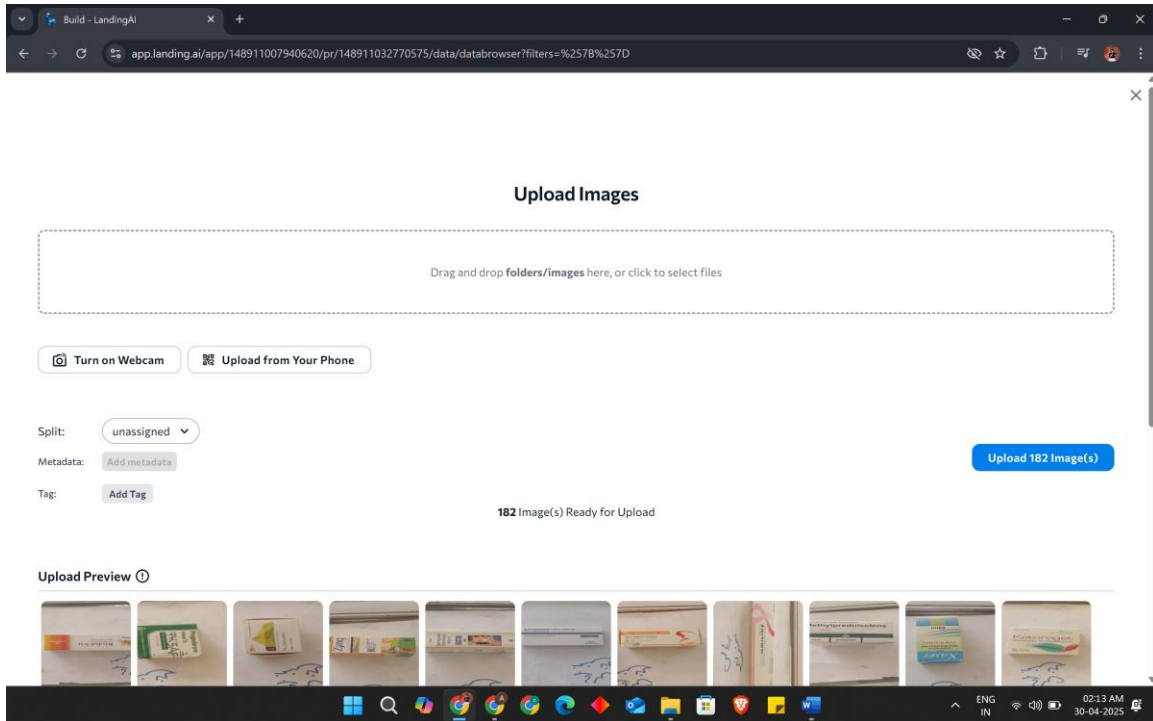
This project involves developing a cognitive assistant capable of reading and interpreting labels on medicine bottles using computer vision. By uploading various images of labeled bottles to LandingLens, a model is trained to detect and extract important information such as medicine name, dosage, and expiry date. This assistant helps patients, especially the elderly or visually impaired, in accurately identifying medicines.

Screenshots

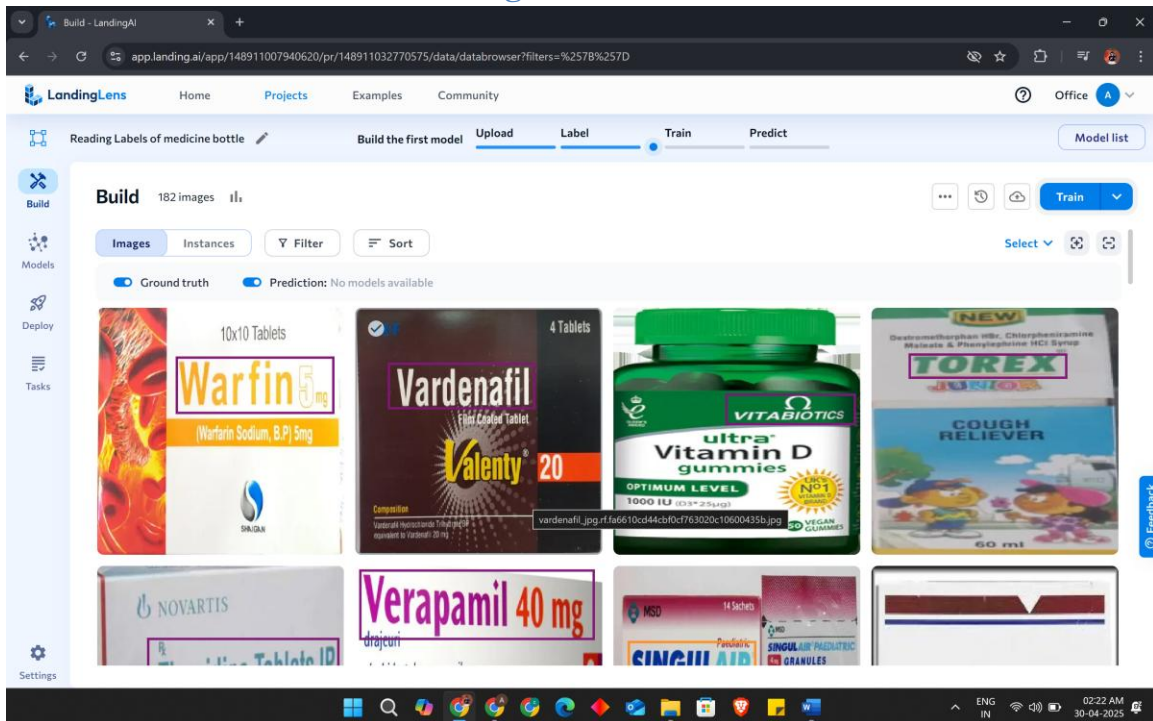
Screenshot 1: Project Creation Page



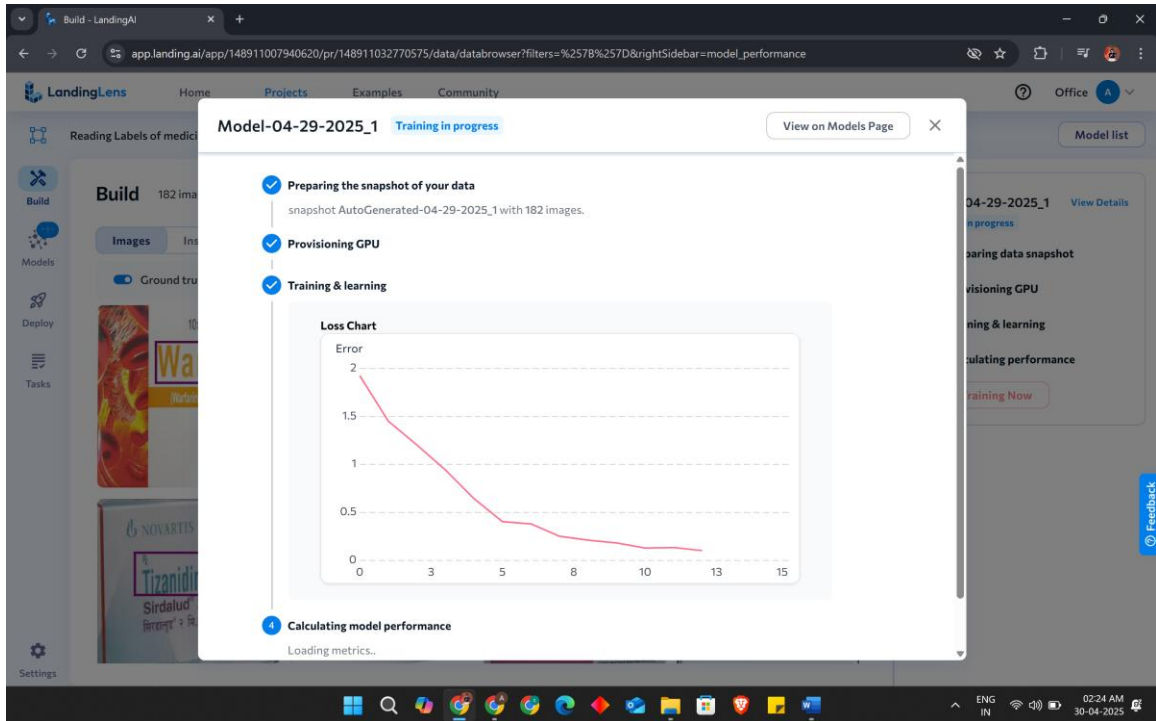
Screenshot 2: Image Upload Step



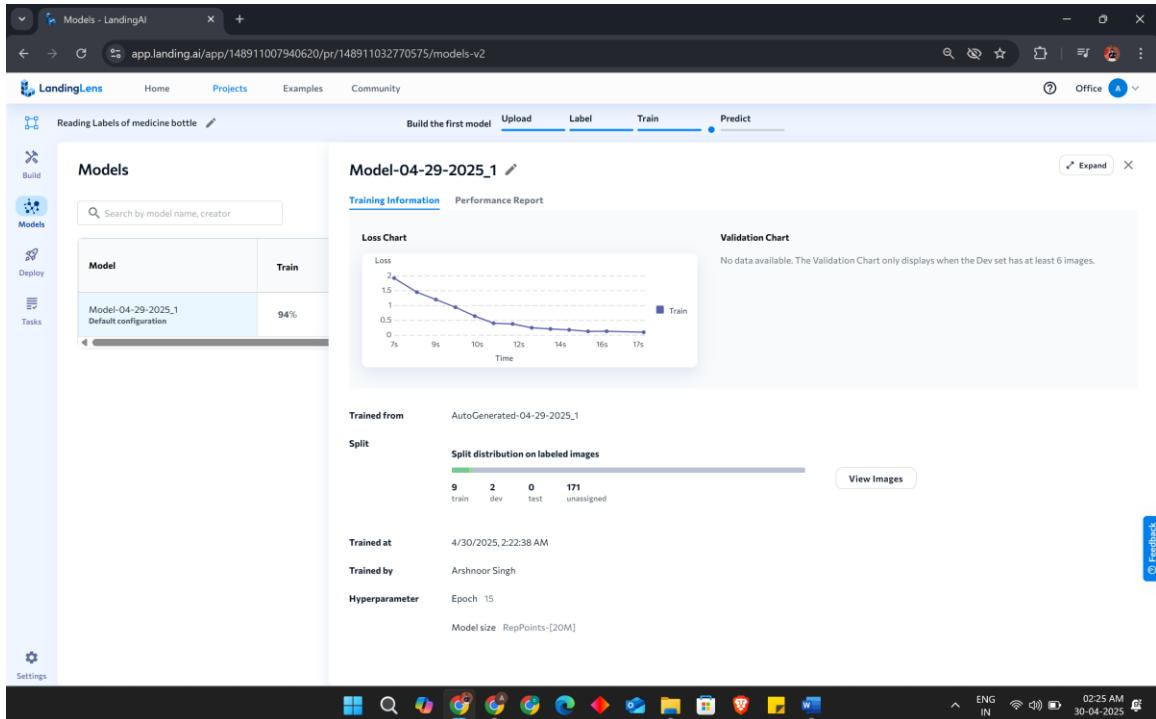
Screenshot 3: Annotation/Labeling Tool

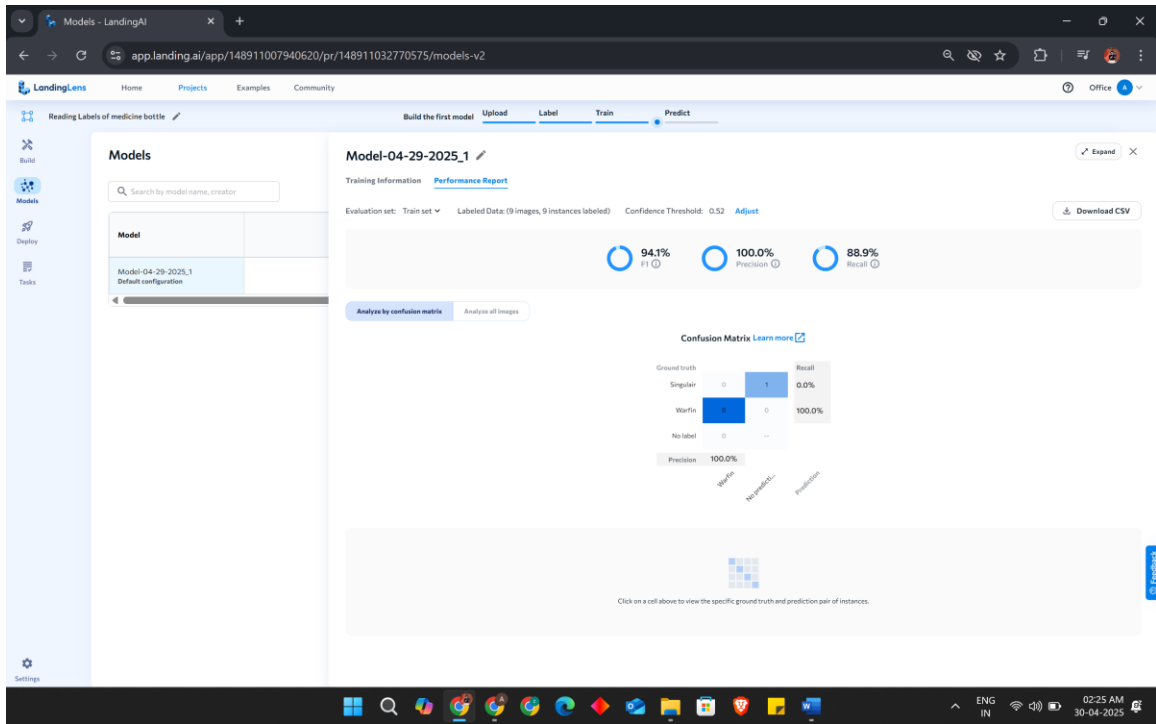


Screenshot 4: Training Progress

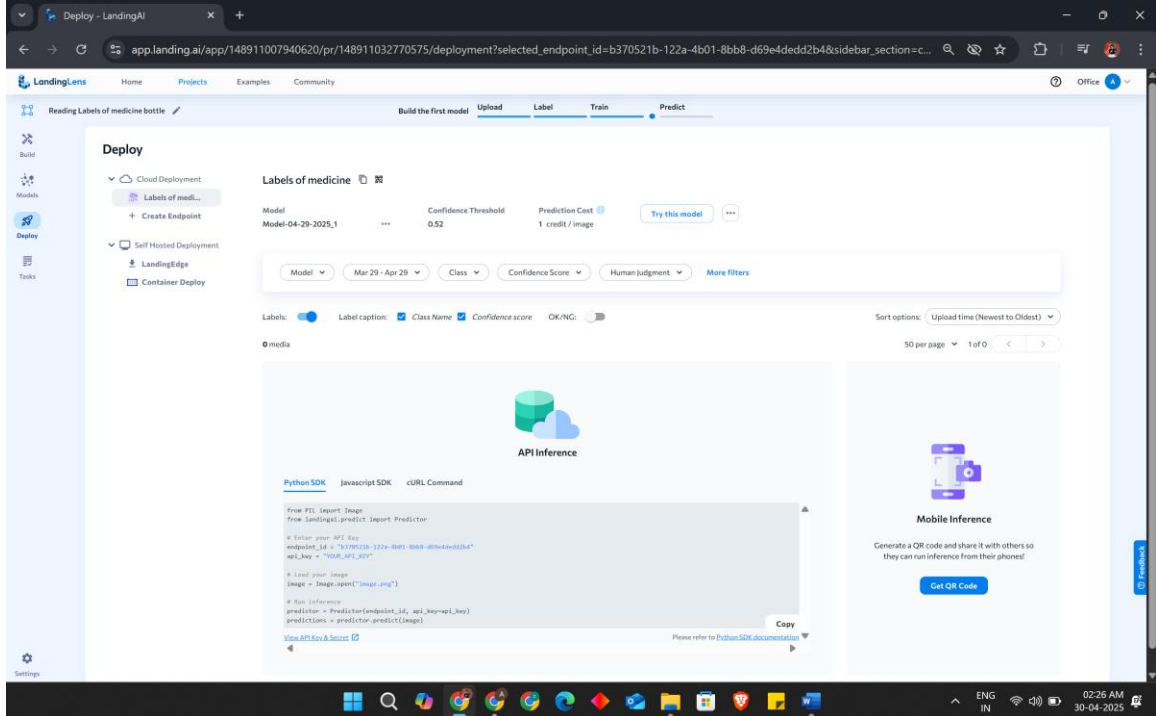


Screenshot 5: Testing Results





Screenshot 6: Deployment or API Interface



Arshnoor Singh
102317161

Project Report – LandingLens Classification

Project Title:

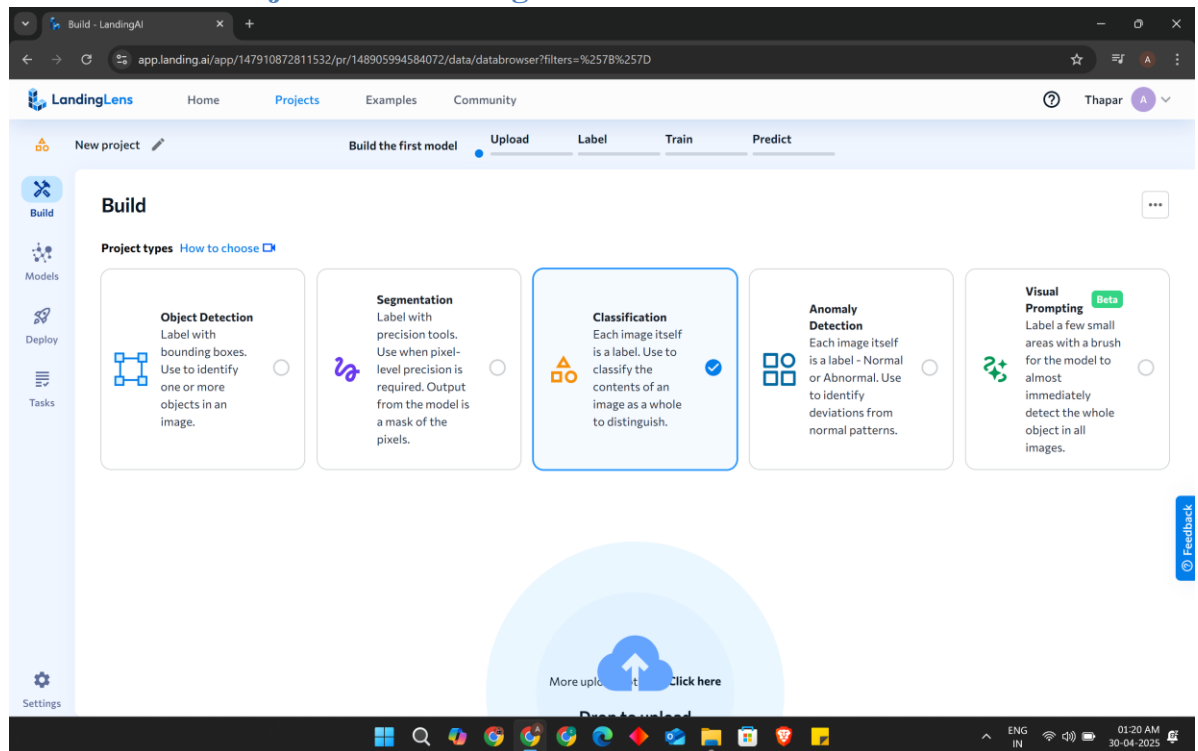
Emotion-aware Cognitive Assistant

Project Idea:

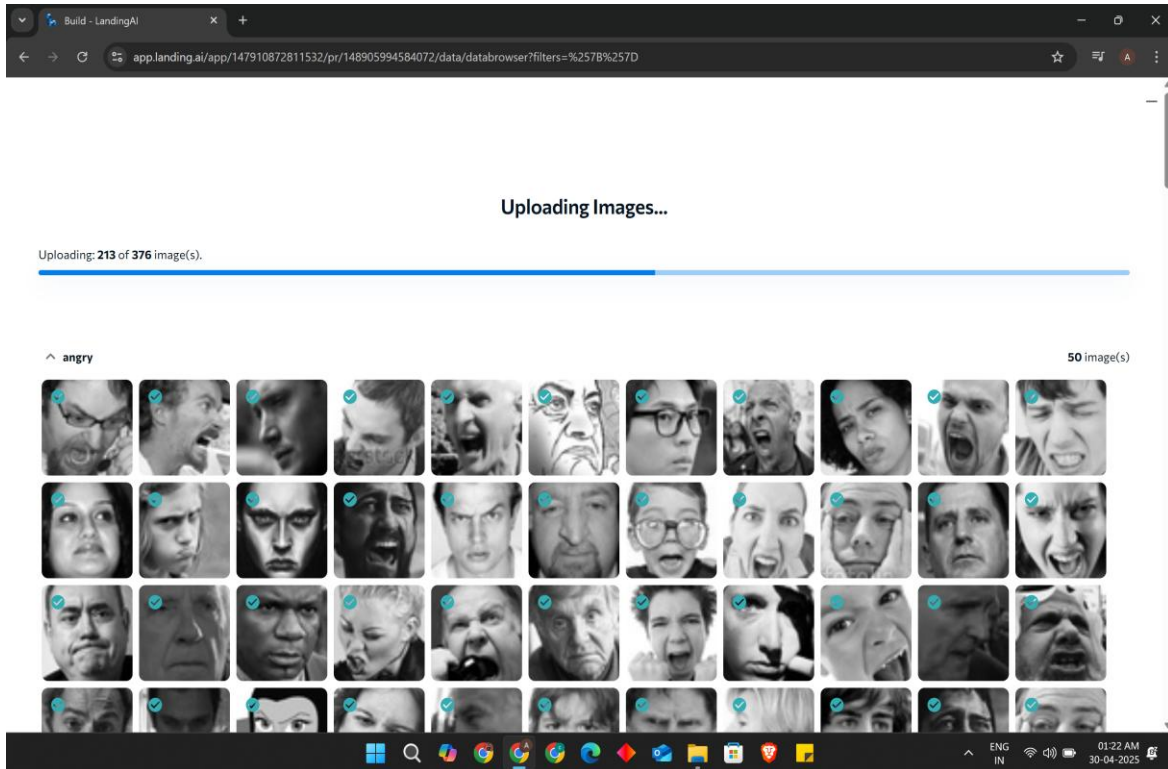
This project aims to develop an emotion-aware cognitive assistant that detects human emotions through facial expression analysis. Using LandingLens, images of different emotional expressions are uploaded and labeled. The trained model classifies emotions like happiness, anger, sadness, etc., in real time. This assistant can be integrated into interactive systems for enhanced user experience and mental health monitoring.

Screenshots

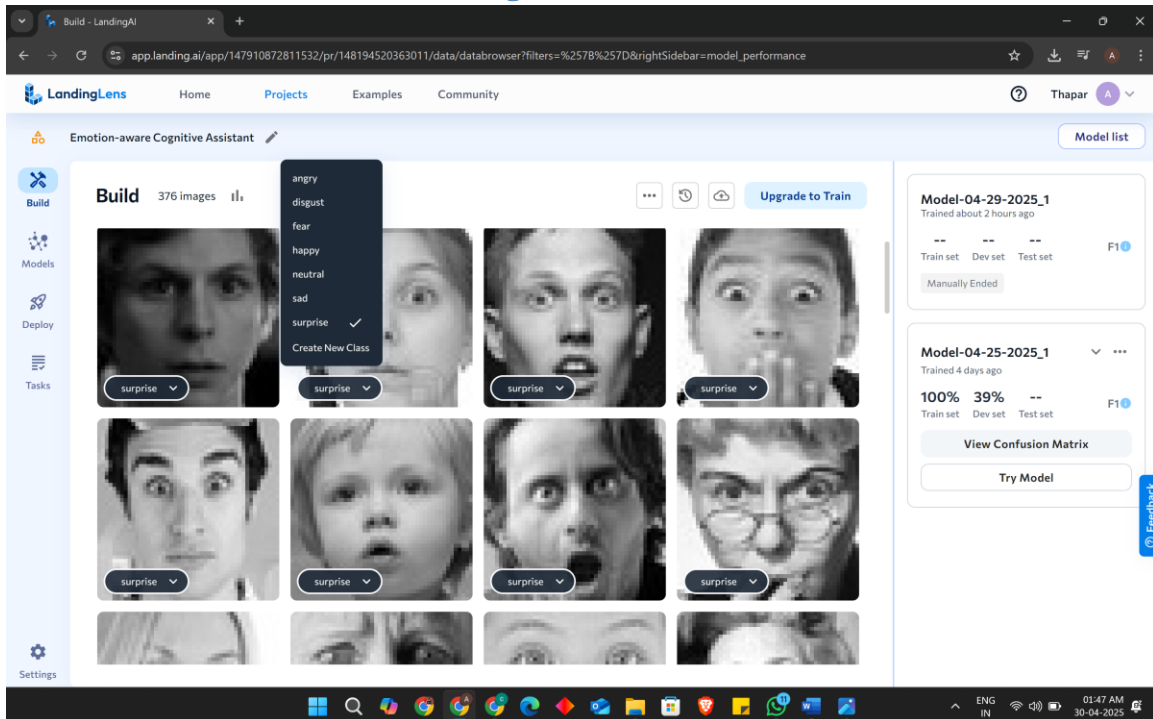
Screenshot 1: Project Creation Page



Screenshot 2: Image Upload Step



Screenshot 3: Annotation/Labeling Tool



Screenshot 4: Training Progress

The screenshot shows the 'Build' tab in the LandingLens interface. The top navigation bar includes 'Home', 'Projects', 'Examples', and 'Community'. The main header has tabs for 'New project', 'Build the first model', 'Upload', 'Label', 'Train', and 'Predict'. The 'Train' tab is active, showing a grid of 8 facial images with 'surprise' labels. A 'Train' button is visible. On the right, a sidebar shows the training progress for 'Model-04-29-2025_1' with steps: 'Preparing data snapshot' (completed), 'Provisioning GPU' (in progress), 'Training & learning' (pending), and 'Calculating performance' (pending). A 'View Details' link and an 'End Training Now' button are also present.

Build 376 images

Filter Sort

Ground truth Prediction

surprise surprise PrivateTest_9610220.jpg surprise

Model-04-29-2025_1 View Details

Training in progress

- 1. Preparing data snapshot
- 2. Provisioning GPU
- 3. Training & learning
- 4. Calculating performance

End Training Now

Screenshot 5: Testing Results

The screenshot shows the 'Models' tab in the LandingLens interface. The top navigation bar includes 'Home', 'Projects', 'Examples', and 'Community'. The main header has tabs for 'New project', 'Build the first model', 'Upload', 'Label', 'Train', and 'Predict'. The 'Models' tab is active, showing a table of models. The table has columns for 'Model' and 'Train'. The model 'Model-04-25-2025_1' is listed with a 'Train' status of '100%'. On the right, a sidebar shows the testing results for 'Model-04-25-2025_1' with tabs for 'Training Information' and 'Performance Report'. The 'Performance Report' tab is active, showing a 'Loss Chart' and a 'Validation Chart'. The 'Loss Chart' shows a decreasing trend in loss over time. The 'Validation Chart' shows a decreasing trend in F1 score over time. Below the charts, a 'Split' section shows the distribution of images: 301 train, 75 dev, 0 test, and 0 unassigned. A 'View Images' button is present. The 'Trained from' section shows 'AutoGenerated-04-25-2025_1'. The 'Trained at' section shows '4/26/2025, 12:55:04 AM'. The 'Trained by' section shows 'ARSHNOOR SINGH'. The 'Hyperparameter' section shows 'Epoch: 15' and 'Model size: ConvNext-(29M)'.

Models

Search by model name, creator

Model	Train
Model-04-25-2025_1 Default configuration	100%

Model-04-25-2025_1

Training Information Performance Report

Loss Chart

Validation Chart

Trained from AutoGenerated-04-25-2025_1

Split

Split distribution on labeled images

train	dev	test	unassigned
301	75	0	0

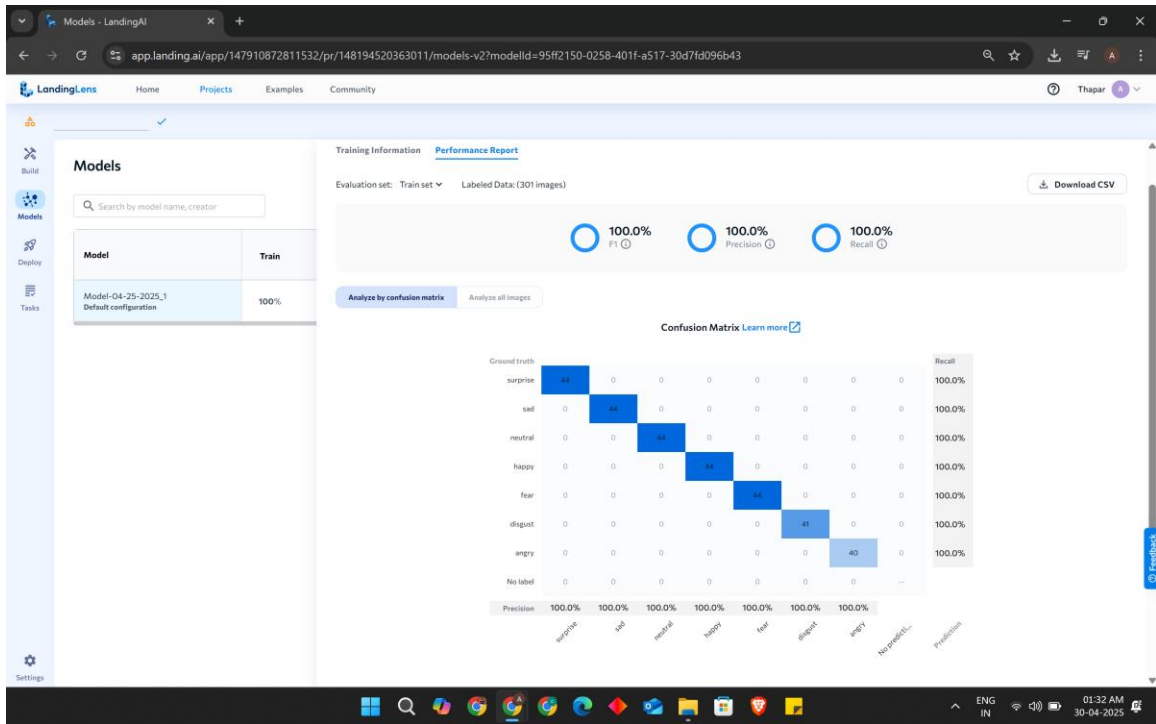
View Images

Trained at 4/26/2025, 12:55:04 AM

Trained by ARSHNOOR SINGH

Hyperparameter Epoch: 15

Model size: ConvNext-(29M)



Screenshot 6: Deployment or API Interface

The screenshot displays the 'Deploy' section of the LandingLens application. It shows deployment options for the 'Emotion-aware Cognitive Assistant' model.

Deploy Options:

- Cloud Deployment: Emotion-aware... (Create Endpoint)
- Self Hosted Deployment: LandingEdge, Container Deploy

Model Details:

- Model: Model-04-25-2025,1
- Prediction Cost: 1 credit / image
- Try this model

Filters:

- Model: [Dropdown]
- Mar 29 - Apr 29
- Class: [Dropdown]
- Confidence Score: [Dropdown]
- Human Judgment: [Dropdown]
- More filters

Labels:

- Label caption: ☒ Class Name ☒ Confidence score

Sort options:

- Upload time (Newest to Oldest)

API Inference:

```
from PIL import Image
from landingai.predict import Predictor

# Enter your API key
endpoint_id = "ba8777e-11f9-48fc-83da-67b07fab2a37"
api_key = "705d_a9f1_4917"

# Load your image
image = Image.open("image.png")

# Run inference
predictor = Predictor(endpoint_id, api_key=api_key)
predictions = predictor.predict(image)
```

Mobile Inference:

Generate a QR code and share it with others so they can run inference from their phones!

[Get QR Code](#)