

Retail case description and data repository

1. For accessing the data repository visit:
<https://cases.adsee.eu/hub/login>

2. Sing in with your Google account.

Case consists out of four core parts.

1. Data selection and sample case development

For our Marketing case we'll show how to detect various objects in video. For that purpose, we need to first:

- download YouTube movie from YouTube to our server
- take out image every 5th second of the movie
- store image data in separate folder available for further processing

This image will be latter on used for:

- detecting faces in images
- detecting sex and gender of detected faces

Case location: open **AUC_Retail_Marketing** and then go to **ADSEE_Streets** folder. Open file: **01_Marketing_Case_Data_Selection_Sample_Data_Development.ipynb**

2. Object detection from video media

In this case we'll show how to detect various objects in video. Here we will demonstrate how to:

- detect various objects in taken images (people, bicycles, cars, bags...)
- store detected data in separate images which will show detected objects on image

store detected data in Excel file for easy reference so we can quickly see on which second of the movie some objects were detected. Case location: open **AUC_Retail_Marketing** and then go to **ADSEE_Streets** folder. Open file:

02_Marketing_Case_Object_Detection_Model_Development_Results_Analysis.ipynb

3. Detecting faces in images

Our next step is to detect only faces in street images. Idea is first to identify all faces of people on our street images and to cut out all images of faces. Later on we'll use this images to run our final analysis and try to identify sex and gender of people based on images of their faces.

Case location: open **AUC_Retail_Marketing** and then go to **ADSEE_Streets** folder. Open file: **03_Marketing_Case_Face_Detections_Model_Development_Results_Analysis.ipynb**

4. Detection of age, gender, ethnicity and emotions

In this 4th part of our case, we all images of faces that we managed to detect in previous steps. Idea is now to try to recognize age, gender, ethnicity and emotions-based images of faces we have previously extracted.

Case location: important note, this notebook file is in separate folder **AgeGenderDetection**. Open **AUC_Retail_Marketing** and then go to **ADSEE_Streets** folder, and then to folder **AgeGenderDetection**.

Open file:

04_Marketing_Case_Age_Gender_Detection_Model_Development_Results_Analysis.ipynb.

Case location: important note, this notebook file is in separate folder **AgeGenderDetection**.
Open **AUC_Retail_Marketing** and then go to **ADSEE_Streets** folder, and then to folder
AgeGenderDetection.

Open file:

04_Marketing_Case_Age_Gender_Detection_Model_Development_Results_Analysis.ipynb.