Módulo 13

Big Data & Cloud Computing: Servicios de Big Data en la Nube

Mandatory Task - Containers

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Task Description

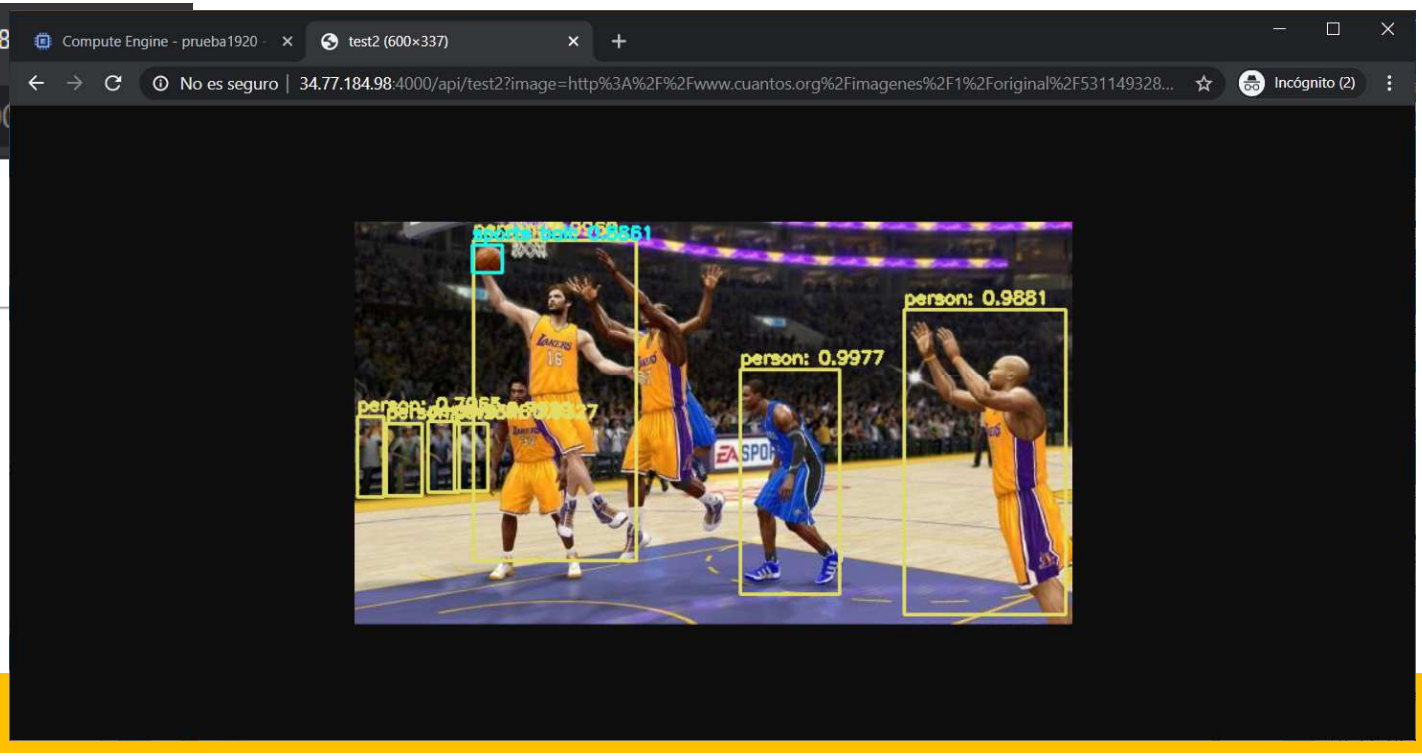
- The **main goal** of the task is to deploy a Docker Container in **two** cloud services:
  - Azure Container Instances, virtual machine, Cloud Run or Kubernetes
- This container will provide a Flask service for **Object Detection** in images using Yolo
  - https://pjreddie.com/darknet/yolo/
- We'll use the YOLOv3 model trained on the COCO dataset (330K images in 80 object categories)
- You have the code in CV (yolo_base.zip). **You only have to upload a short report with screenshots and relevant information**

Task Description

- Step 1. Testing your server locally
  - To be familiar with this server, you should try without using containers (python app.py)
    - http://localhost:4000/upload
    - (Optional) You can also connect from the tkinter application provided (**camera_yolo.zip** in CV)
- Step 2. Build your container (Dockerfile is provided)
  - You will have to use your default context: docker context use default
  - You have to be sure your container is working (port 4000)
- Step 3. Testing your container locally
- Step 4. Deploy to cloud
  - Note: you will need 1 GB memory
- Step 5. Test again

Example

- http://localhost:4000/upload



Camera Yolo

- To test locally, you can run: python img_requests.py (camera_yolo.zip)
- If everything is ok, you should see something similar to this: