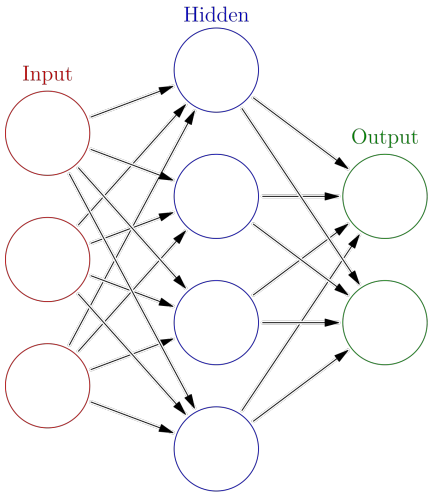
Machine Learning Challenge 2023: Object Recognition

With Turing Innovation Catalyst and Code First Girls

What is a Neural Network?

- Designed specifically for image classification tasks
- Tailored to recognize patterns and features within images
- Examples of applications: identifying diseases in medical images, recognizing objects in self-driving cars, etc



Model Goal: Identifying objects and letters

- Objective: identify various objects and letters within a series of images

- Chosen targets: Bee, Football ball, Laptop, Letter M, Letter T, Train






Dataset Creation

Structure:

- One main directory named "Dataset"
- 6 sub-directories, each containing images of a specific object or letter

Dataset
- Bee
- Football ball
- Laptop
- Letter M
- Letter T
- Train

Model Development in VS Code

- Install and import necessary libraries
- Data preprocessing: load, split data into training and testing sets, rescale, resize
- Develop the neural network architecture using the Keras library
- Compile, train and evaluate
- Check the model by predicting a random picture from the test set