Project Description:

The project aims to develop an object detection system using ROS2. The system will use a dept camera to detect objects in the environment and provide information about their location and size. The system will also be capable of identifying different types of objects and classifying them accordingly. The project will use ROS2 for communication between different nodes and components of the system.

Objective:

The main objective of the project is to develop a object detection system that can be integrated with ROS2. The system should be capable of detecting a wide variety of objects in different environments and conditions, and provide accurate information about their location and classification. The project also aims to help learners gain a better understanding of ROS2 and object detection model.

Learning Plan:

* Object Detection Model: learn about different object detection algorithms such as YOLO, SSD, and Faster R-CNN watch online lectures, or see tutorial in guide.
* Depth Camera: learn how to use a depth camera in ROS2 by reading the documentation and tutorials for popular sensors such as the Intel RealSense camera or the Microsoft Kinect.
* Implementing Object Detection in ROS2: Once you have chosen an object detection model and have a good understanding of ROS2, you can start implementing the model in ROS2.

