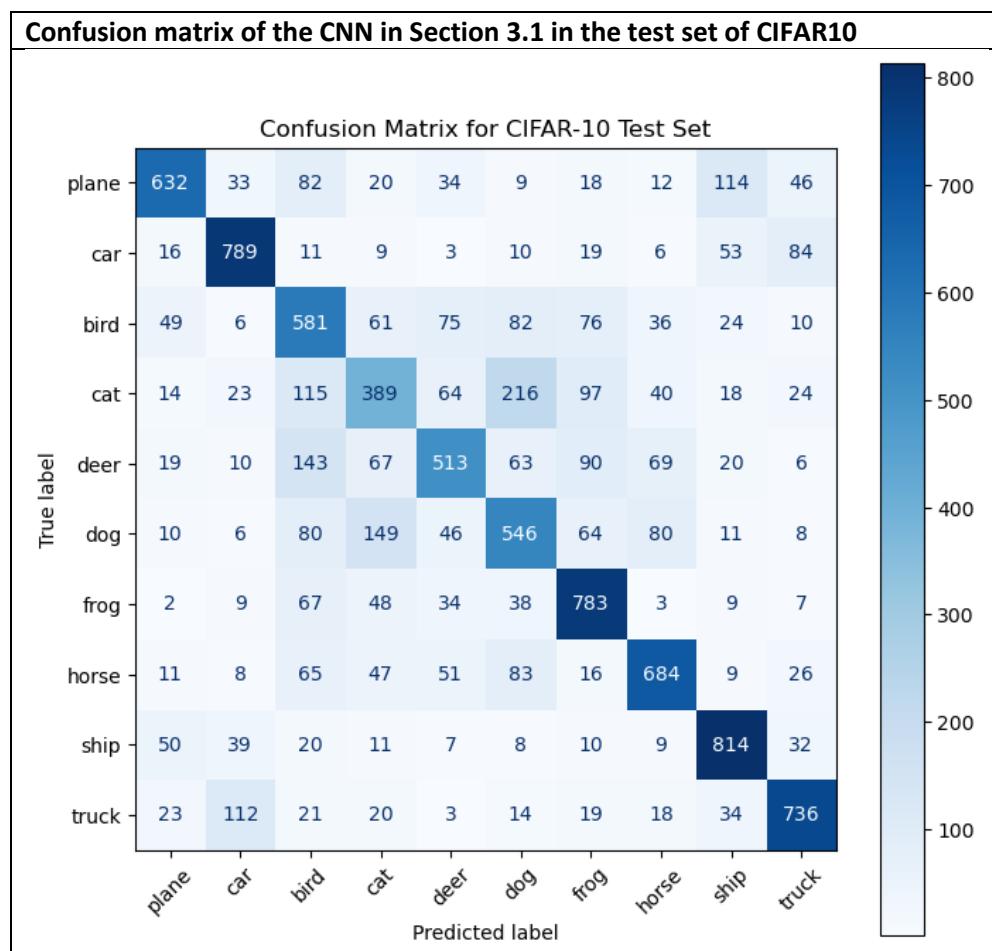**Task 5.1C Answer sheet**

Fill in the required results (numerical data, images).

Notes:

- Examples (if any) need to be replaced by your results.
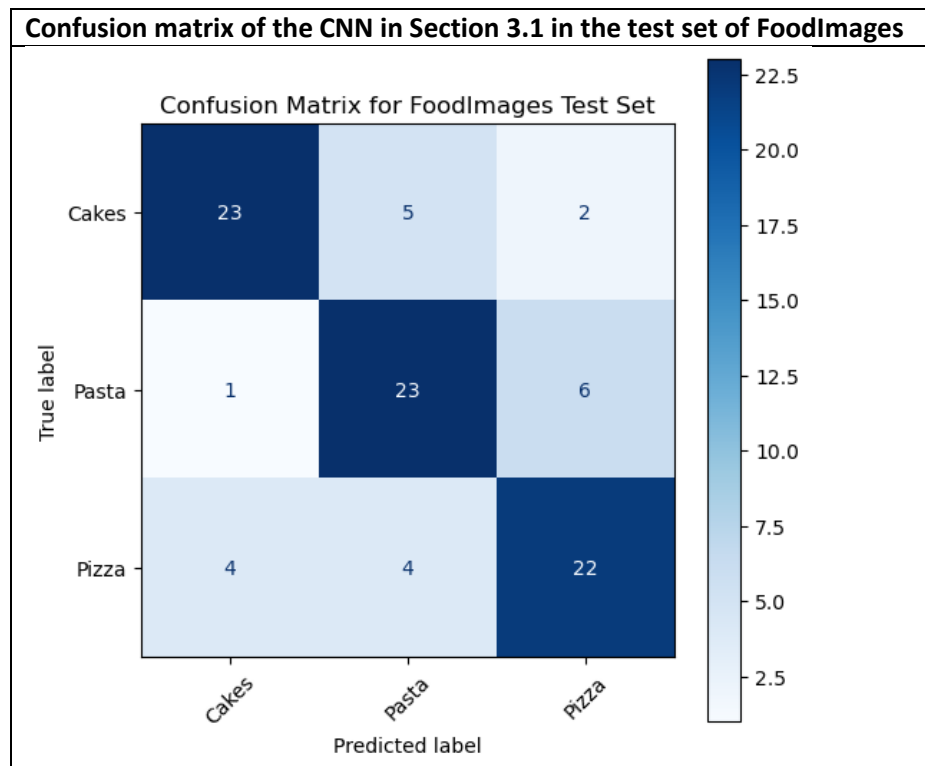- Missing any required results will result in a re-submission.

1. Image recognition in CIFAR10

	Recognition accuracy of the CNN in Section 3.1 in the test set of CIFAR10
Plane	Accuracy of plane : 63 %
Car	Accuracy of car : 78 %
Bird	Accuracy of bird : 58 %
Cat	Accuracy of cat : 38 %
Deer	Accuracy of deer : 51 %
Dog	Accuracy of dog : 54 %
Frog	Accuracy of frog : 78 %
Horse	Accuracy of horse : 68 %
Ship	Accuracy of ship : 81 %
Truck	Accuracy of truck : 73 %
Overall	Accuracy of the network on the 10000 test images: 64 %

Confusion matrix of the CNN in Section 3.1 in the test set of CIFAR10

Confusion Matrix for CIFAR-10 Test Set

2. Image recognition in FoodImages with training-from-scratch setting
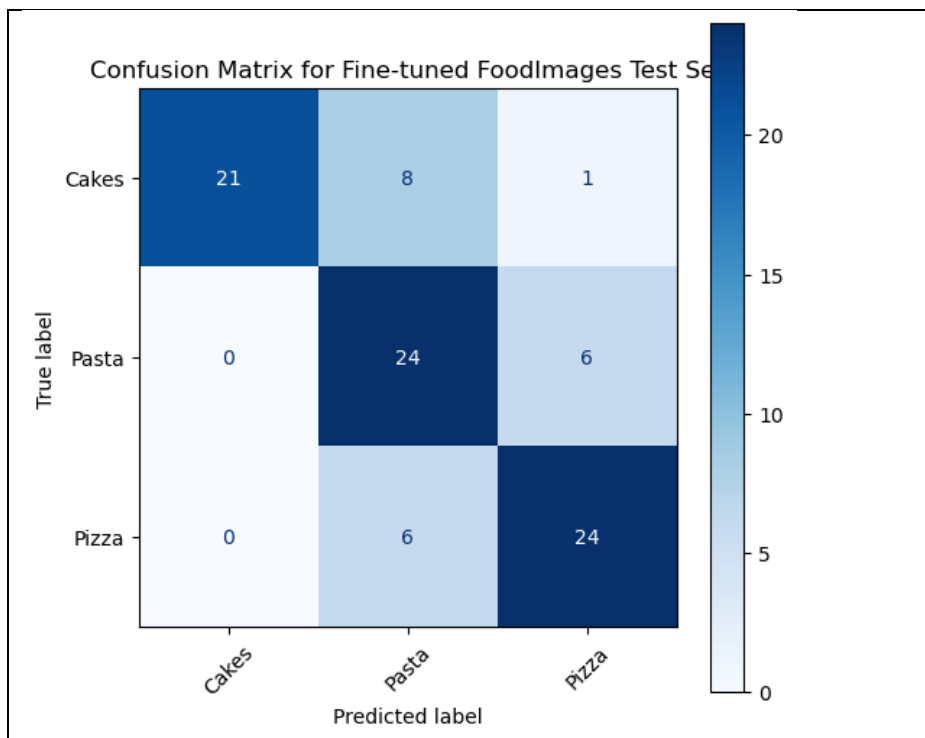
	Recognition accuracy of the CNN in Section 3.1 in the test set of FoodImages
Cakes	Accuracy of Cakes : 76 %
Pasta	Accuracy of Pasta : 76 %
Pizza	Accuracy of Pizza : 73 %
Overall	Accuracy of FoodNet on the test images: 75.56 %

Confusion matrix of the CNN in Section 3.1 in the test set of FoodImages

Confusion Matrix for FoodImages Test Set

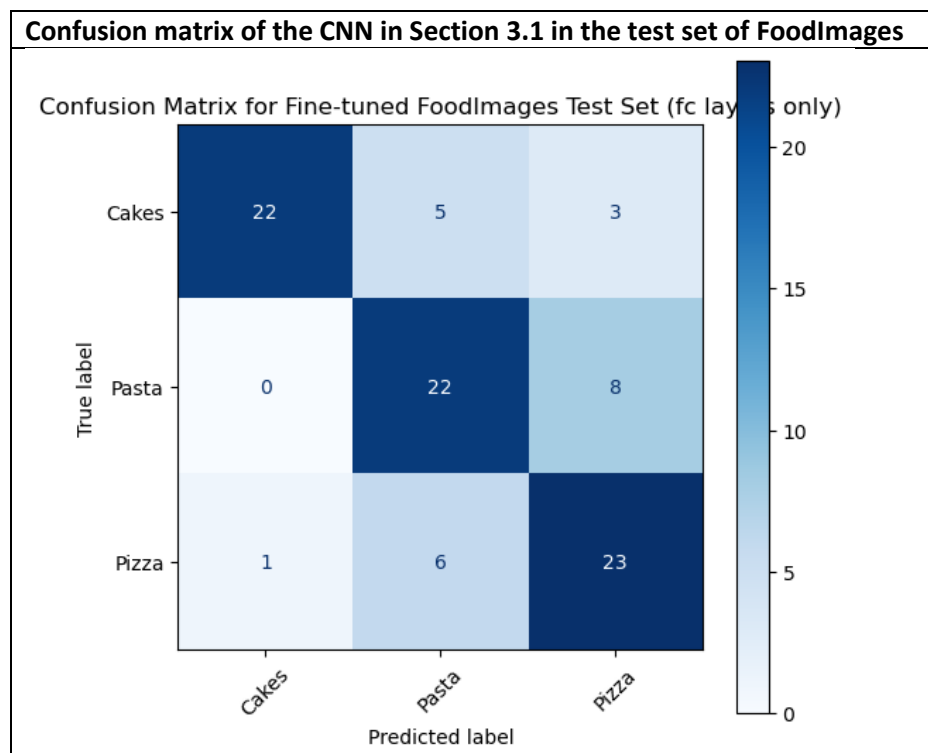## 3. Image recognition in FoodImages with fine-tuning

	Recognition accuracy of the CNN in Section 3.1 in the test set of FoodImages
Cakes	Accuracy of Cakes : 70 %
Pasta	Accuracy of Pasta : 80 %
Pizza	Accuracy of Pizza : 80 %
Overall	Accuracy of fine-tuned model on FoodImages test images: 76.67 %

Confusion matrix of the CNN in Section 3.1 in the test set of FoodImages

Confusion Matrix for Fine-tuned FoodImages Test Set

4. Image recognition in FoodImages with customised training

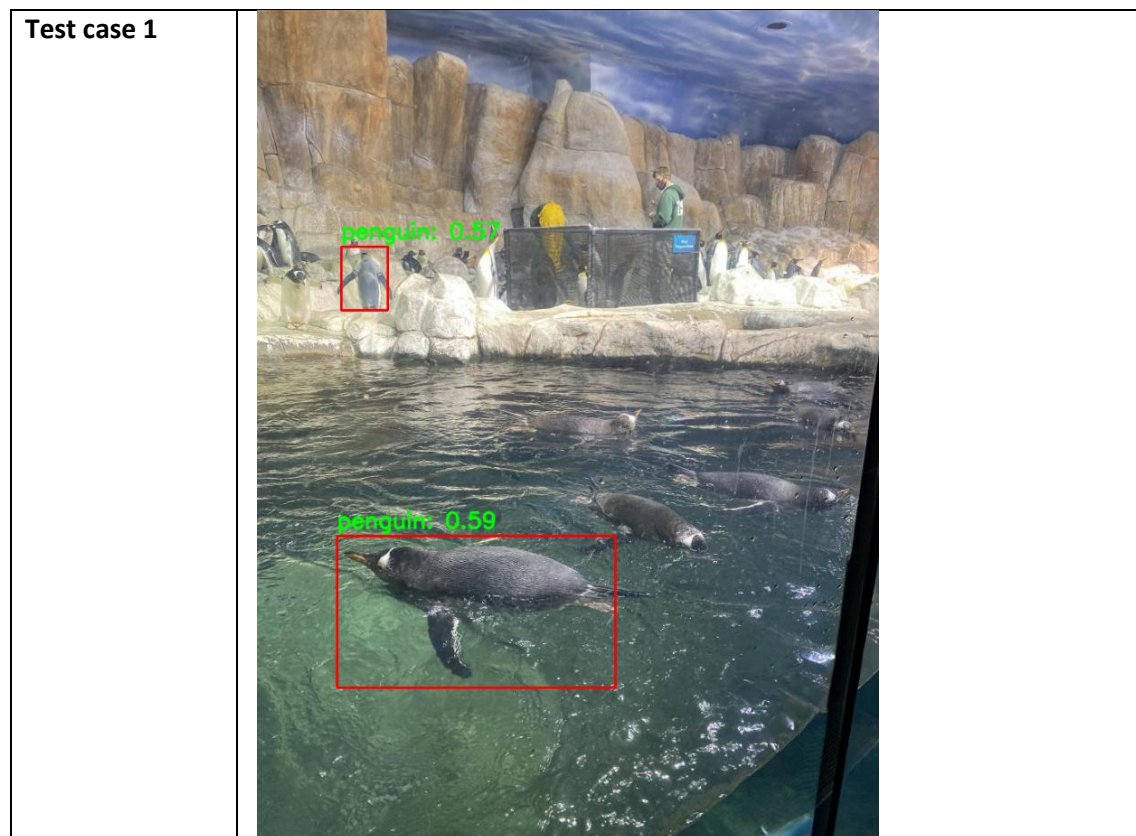|	Recognition accuracy of the CNN in Section 3.1 in the test set of FoodImages
Cakes	Accuracy of Cakes : 73 %
Pasta	Accuracy of Pasta : 73 %
Pizza	Accuracy of Pizza : 76 %
Overall	Accuracy of fine-tuned model (fc layers only) on FoodImages test images: 74.44 %

Confusion matrix of the CNN in Section 3.1 in the test set of FoodImages

Confusion Matrix for Fine-tuned FoodImages Test Set (fc layers only)

5. Object detection in Aquarium
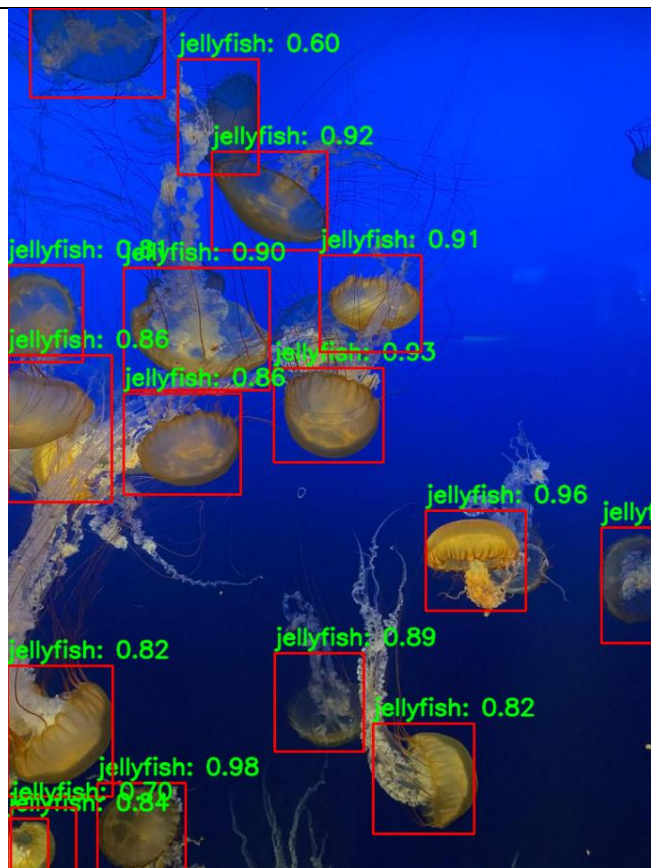
a. Detection performance

	mAP@50	mAP@50-95	Training time (in minutes)	Testing time (in minutes)	Inference speed (frames-per-second)
FasterRCNN_ResNet50_FPN_Weights	0.698	0.357	14.59 minutes	0.16 minutes	6.73
FasterRCNN_MobileNet_V3_Large_320 _FPN_Weights	0.410	0.177	1.88 minutes	0.05 minutes	21.37

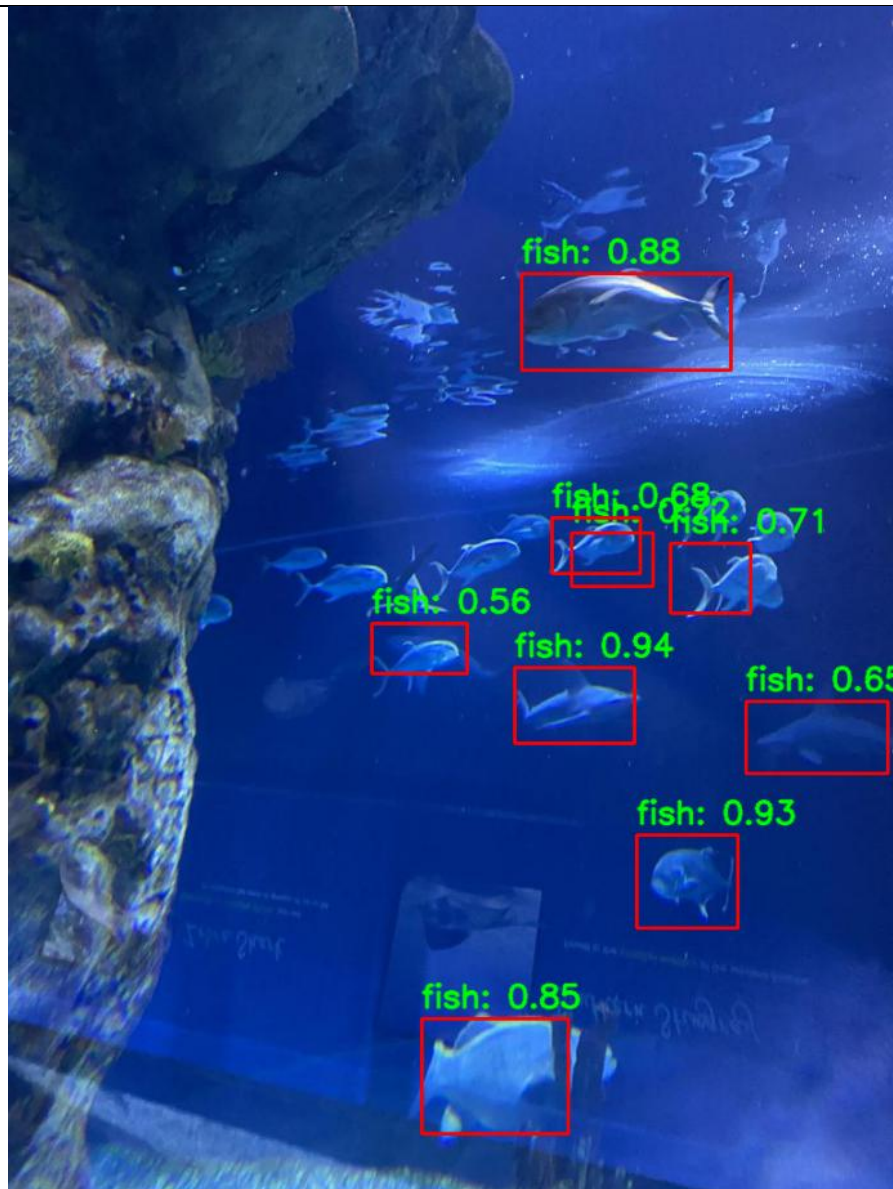### b. Visual results of FasterRCNN with MobileNet_V3_Large_320_FPN backbone

Test case 1	

Test case 2	
Test case 3	

| Test case 4 | |

| Test case 5 | |