Vitis AI Lab 1 & 2

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Agenda

- Environment Setup
- Lab 1: AI Quantizer and AI Compiler – Caffe
- Lab 2: AI Quantizer and AI Compiler – TensorFlow2 and PyTorch

Environment Setup

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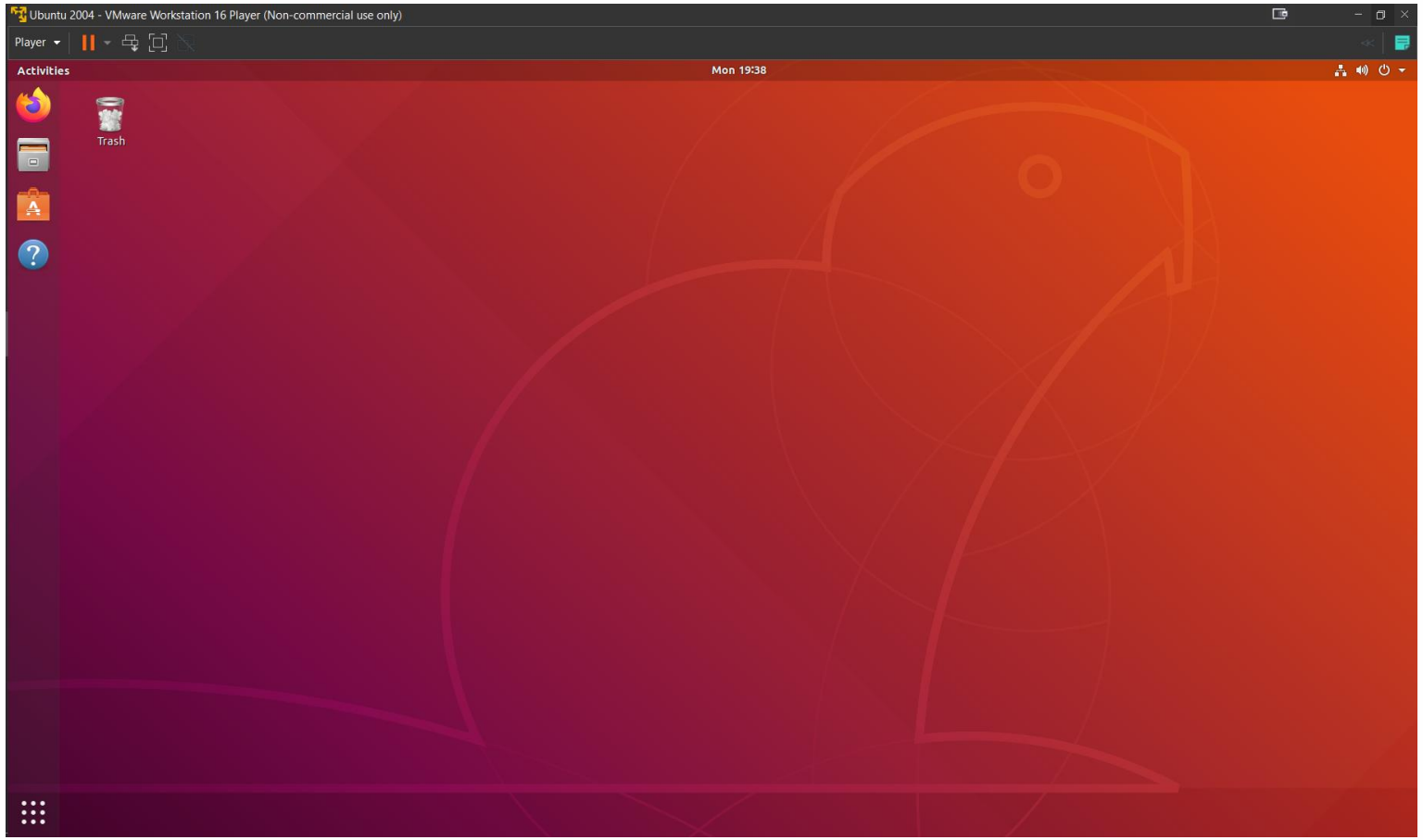
Environment Setup

- Ubuntu 20.04 on VMware
  1. Install VMware
  2. Download the iso file of Ubuntu 20.04



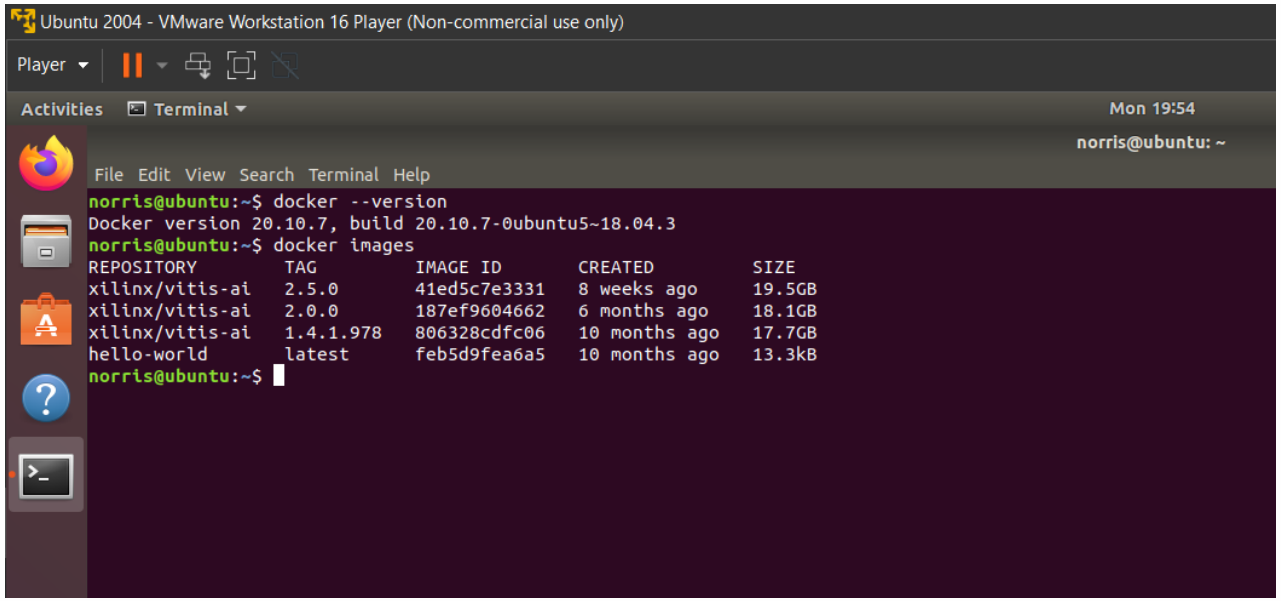
Environment Setup

- Docker
  1. Install Docker

     sudo apt-get install docker.io
  2. Check Docker installation

     sudo docker –version
  3. Remove typing ‘sudo’ before docker

     sudo chmod 666 /var/run/docker.sock



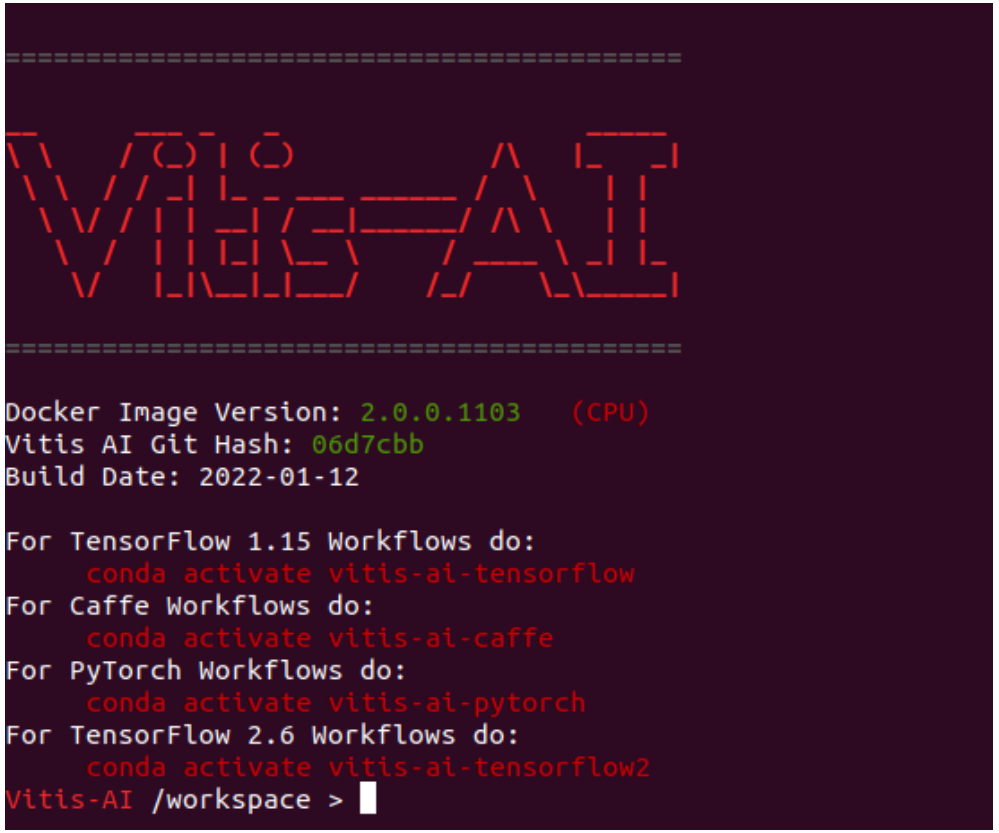
Environment Setup

- Vitis AI 2.0
  1. Download Vitis AI v2.0 from github

     git clone https://github.com/Xilinx/Vitis-AI.git -b v2.0
  2. Download Vitis AI Docker Image

     docker pull xilinx/vitis-ai:2.0.0
  3. Activate Vitis AI Docker Environment

     ./docker_run.sh 2.0.0



Lab 1: AI Quantizer and AI Compiler – Caffe

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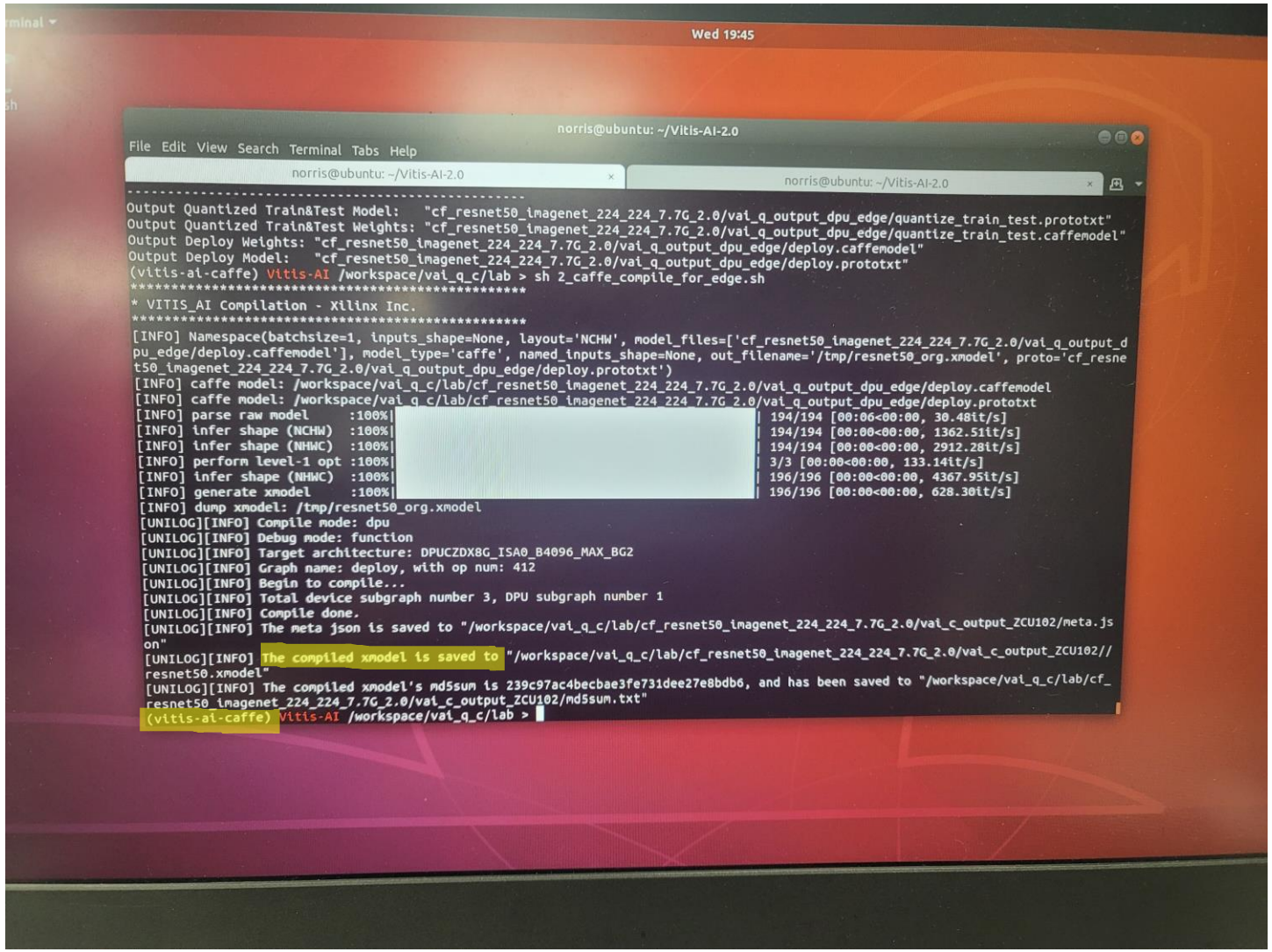
AI Quantizer and AI Compiler – Caffe

- Result - Caffe



Lab 2: AI Quantizer and AI Compiler – TensorFlow2 and PyTorch

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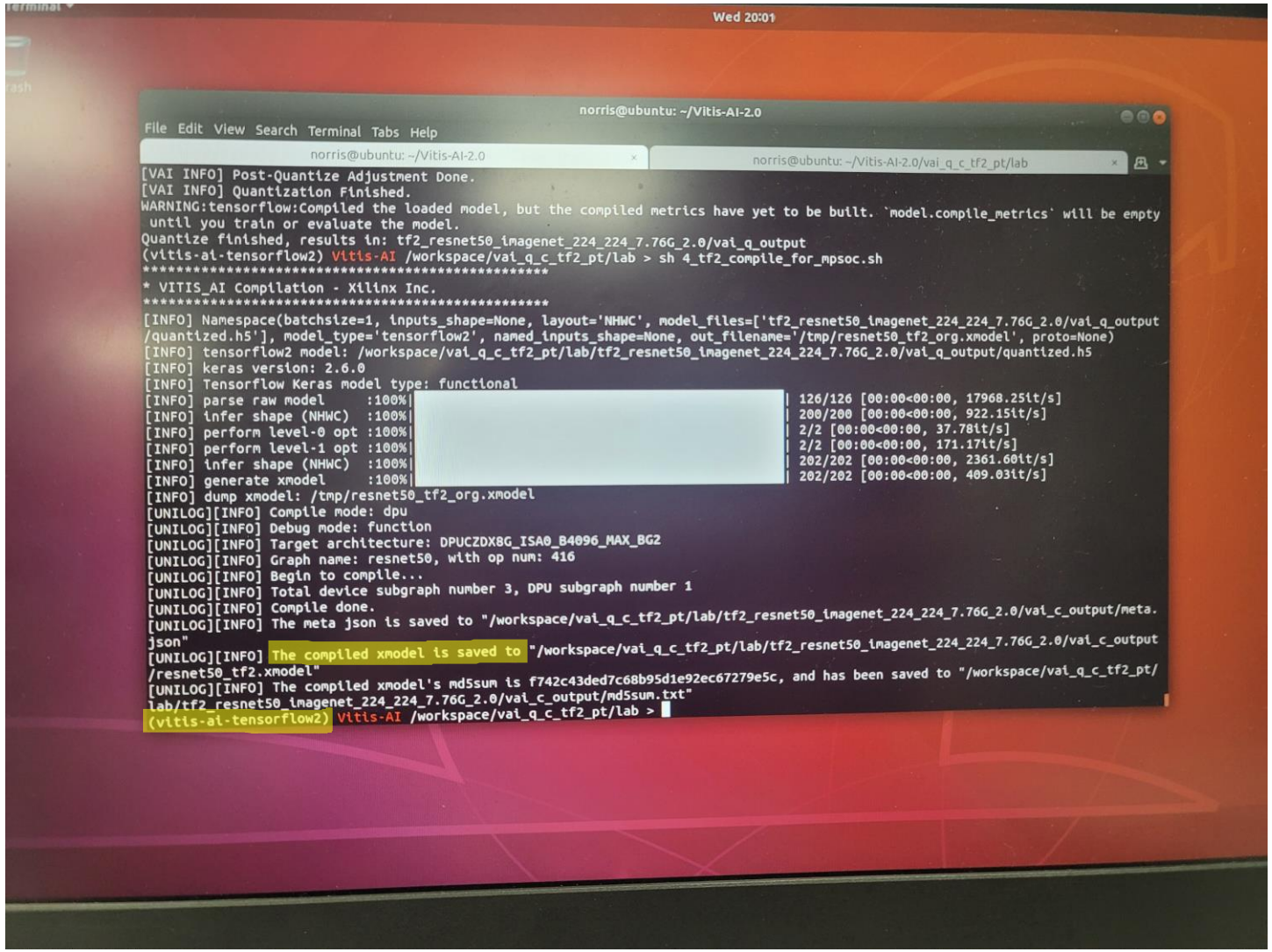
AI Quantizer and AI Compiler – TensorFlow2 and PyTorch

- Result – Tensorflow2



AI Quantizer and AI Compiler – TensorFlow2 and PyTorch

- Result - PyTorch