# Document 2: Onboarding Instructions for Students

This document provides step-by-step instructions for students to download and use the Docker image to launch the course environment, regardless of their host OS.

**Onboarding Instructions for Integrated Python Course**

Welcome to the Integrated Python Course! To ensure a smooth start, we’ve prepared a Docker image with all required software and dependencies pre-installed. Follow these steps to get started on your laptop, whether you use Windows, macOS, or Linux.

**Prerequisites**

* **Docker Desktop**: Install Docker Desktop from [docker.com](https://www.docker.com/products/docker-desktop).
  + Windows/macOS: Follow the installer instructions.
  + Linux: Use your package manager (e.g., sudo apt install docker.io on Ubuntu).
* **Administrative Privileges**: You may need admin rights to install Docker.
* **Internet Connection**: Required for the initial setup.

**Steps to Launch the Course Environment**

1. **Install Docker Desktop**
   * Download and install Docker Desktop from the official website.
   * Launch Docker Desktop and sign in (optional).
   * On Windows, ensure "Switch to Windows containers" is enabled (via the Docker tray icon) to match the image.
2. **Download the Docker Image**
   * Download the integrated-python-course.tar file from the provided link or drive shared by the instructor.
   * Save it to a convenient location (e.g., C:\DockerImages on Windows).
3. **Load the Docker Image**
   * Open a terminal or command prompt.
   * Navigate to the directory containing the .tar file (e.g., cd C:\DockerImages).
   * Load the image by running:

text

docker load -i integrated-python-course.tar

* + Verify the image is loaded:

text

docker images

You should see integrated-python-course:latest.

1. **Run the Docker Container**
   * Start the container with an interactive shell:

text

docker run -it integrated-python-course:latest

* + This opens a PowerShell session inside the container.

1. **Explore the Environment**
   * **Check Python**: Run python --version to confirm Python 3.11 is installed.
   * **Launch VS Code**: Run code to open the IDE (may require configuration inside the container).
   * **Launch PyCharm**: Run pycharm to open the IDE.
   * **Test Libraries**: Run python -c "import pandas; print(pandas.\_\_version\_\_)" to verify dependencies.
2. **Start Working**
   * Use the terminal to navigate to /app (the working directory).
   * Create or open Python files (e.g., notepad day10\_sample.py) and start coding.
   * For web development or APIs, map ports if needed (e.g., docker run -it -p 8000:8000 integrated-python-course:latest for FastAPI).

**Troubleshooting**

* **Docker Not Starting**: Ensure virtualization is enabled in your BIOS and Docker Desktop is running.
* **Software Not Found**: Restart the container or re-load the image.
* **Port Issues**: Use -p host\_port:container\_port to map ports for web apps.

**Additional Notes**

* The container runs for 1 hour by default. Restart with docker run -it integrated-python-course:latest if needed.
* Save your work inside the container (e.g., in /app) or map a local directory with -v /host/path:/app.
* Contact the instructor if you encounter issues.

Enjoy the course! You’re now ready to dive into the Integrated Python Course materials.