Module: UVM-1
Section: Ready to start coding? **Task:** Project 1

Testcase Running Guide

➢ **Introduction:**
This guide provides detailed instructions on setting up and running test cases for our project. We'll cover the folder hierarchy, the contents of the Makefile, and step-by-step directions for compiling and executing the simulations. Whether you're new to the project or need a refresher, this guide aims to help you efficiently manage your test environment.

➢ **Folder Hierarchy:**

```
code/
├── includes/
│   ├── agent.sv
│   └── driver.sv
│   └── environment.sv
│   └── interface.sv
│   └── monitor.sv
│   └── reference_model.sv
│   └── scoreboard.sv
│   └── sequencer.sv
│   └── test_top.sv
│   └── transaction.sv
├── rtl/
│   └── up_counter.sv
├── testbench/
│   └── testbench.sv
├── testcases/
│   └── base_sequence.sv
│   └── wrap_sequence.sv
│   └── reset_sequence.sv
│   └── priority_sequence.sv
├── run.do
└── Makefile
```

- **Explanation of Makefile:**
  - **Variable:**
    - **VCS:** Command to compile the design files using VCS. Includes necessary include directories and specifies the output binary as simv.
    - **SIMV:** The path to the compiled simulation binary.
    - **DVE:** Command to launch DVE for waveform viewing.
  - **Variable:**
    - **all:** The default target that will run both compile and run.
    - **compile:** This target compiles the design using the command stored in VCS.
    - **run:** This target checks if the simv binary exists. If it does, it runs the simulation with any provided runtime arguments, logs the output to log.txt, and starts DVE. If the binary doesn't exist, it prints "Compilation Failed".
    - **clean:** This target removes the simv binary, log file, and directory. This ensures you can start fresh for the next run.

- **Running Test Cases:**
  - **Compile the Design:** Run `make compile` to compile the design files. This will generate the simv binary.
  - **Clean Up:** Run `make clean` to remove the compiled binary, log file, and directory. This ensures you can start fresh for the next run.