AXI DMA Verification
Testcase Running Guide

AXI DMA Verification

➢ **Introduction:**

This guide provides a step-by-step process for running various test cases using the provided verification architecture. Carefully follow each step to ensure proper setup and execution. Before proceeding, ensure that Vivado 2022 is installed on your computer, as it is a mandatory prerequisite.

Step 1: Downloading Files

1. Open terminal on your computer and enter the following command to download the verification environment.

```
git clone https://github.com/Noman-10xe/AXI-DMA-Verification.git
```

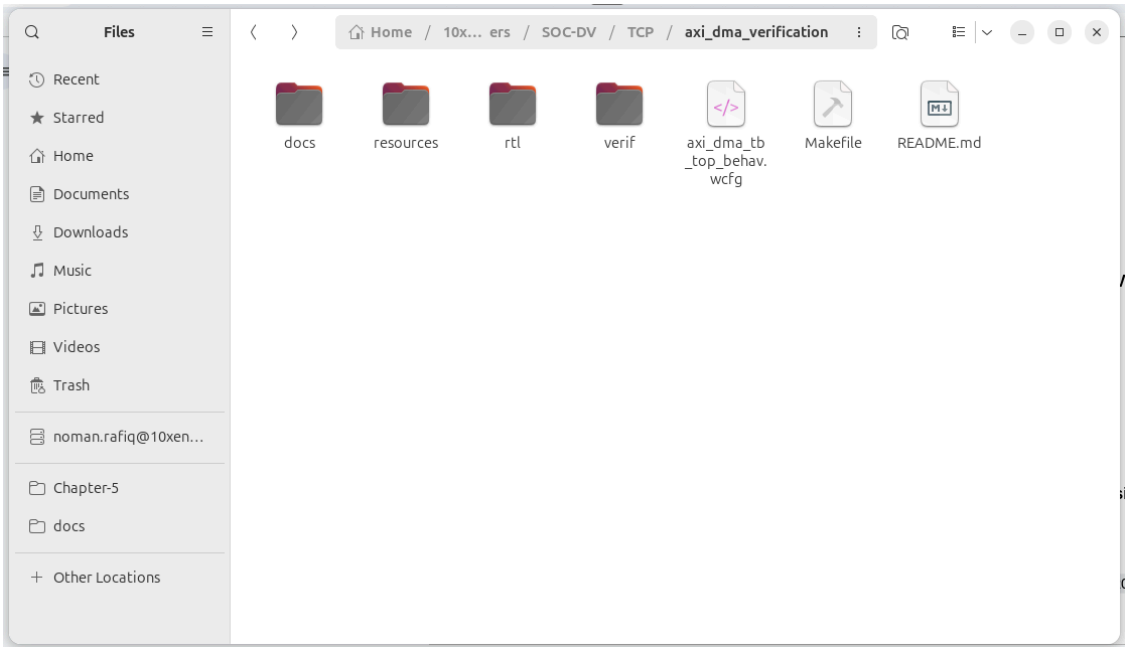
2. Ensure the download is complete and the files are not corrupted.

Step 2: Navigate to the Parent Directory

1. Navigate into the “**home** Directory of the downloaded files”.

```
cd /path-to-code-directory/
```

2. The directory should look like this:



3. Open the terminal in this directory to prepare for the next steps.

Step 3: Run the Make Command for Compilation
1. In the terminal, enter the following command to test a specific testcase:

```
make compile
```

Step 4: Run Make Command for Elaboration

```
make elaborate
```

Step 5: Run Make Command for Simulation

```
make simulate
```

Please note that the testname can be provided to make simulate using command:

```
make simulate TEST_NAME=read_test
```

If the testname is not provided, it will run the default test set inside tb_top.

Step 6: Testcase Legend
Refer to the legend below for the appropriate test names to use in the "**TEST_NAME=**" field:

Testcases	
reset_test mm2s_enable_test s2mm_enable_test read_test raw_test boundary_test data_realignment_test read_introut_test write_introut_test rs_test soft_reset_test	halted_write_test idle_state_test slave_error_test decode_error_test buffer_overflow_test random_reg_test random_stream_read_test random_tkeep_test

- **Final Notes:**
  Follow these steps closely, and you'll be able to test various testcases effectively.