LAP Submit
Submission and Evaluation System

This is an overview of the system that you will use to test your labs/projects and to submit them for grading.

Learning Goal: How to use the LAP submission system.

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1 Introduction

This tutorial will introduce you to a system called Jenkins, used by LAP Submit. You will be using this system to test your labs/projects and to submit them for grading.

> Every team is allowed to make as many submission attempts as it wishes. However, the **final score** will always be the **better** of the **first two** attempts. For example, imagine that your team made three submissions and obtained the following scores: 86%, then 84%, and finally 98%. The overall (final) score will be 86%.

The labs are tested with a testbench which applies a number of tests to your design and provides you with a feedback about the features that are missing or not implemented properly. Prior to every submission, we strongly encourage you to write your own testbench, which is an essential part of debugging hardware designs. Please refer to the **VHDL Testbench Tutorial** for more information on testbench design.

2 Connection

This section will guide you through the steps to connect to the submission system. Try them.

1. Open your web browser and go to `http://lapsubmit.epfl.ch:8080/`. Note that if you are submitting from home, you must have your VPN connection to EPFL running.
2. Then, authenticate yourself using your **GASPAR username** and **password** (Figure 1).
3. Once you are logged in, you can see the Dashboard described in Section 3.

3 Dashboard

The **dashboard** grants you the possibility to submit the requested files for the lab. Note that your dashboard will not look exactly as in Figure 2 as the naming convention for the submissions is *[lab_name]_[your GASPAR username]*. Guidelines on files' submission are provided in Section 4.

Figure 1: Connection

- Make sure you submit **all required files**. If you forget to submit a file, the system will treat it as **empty** and your score will be lower.
- You can upload a **zip file** containing **all required files**, or you can upload the files one by one.
- The system will keep all versions of each submitted file. However, only **the first two** submissions will be taken into account for the grade—one more reason to double check that you have uploaded **all files before submitting** them for evaluation.

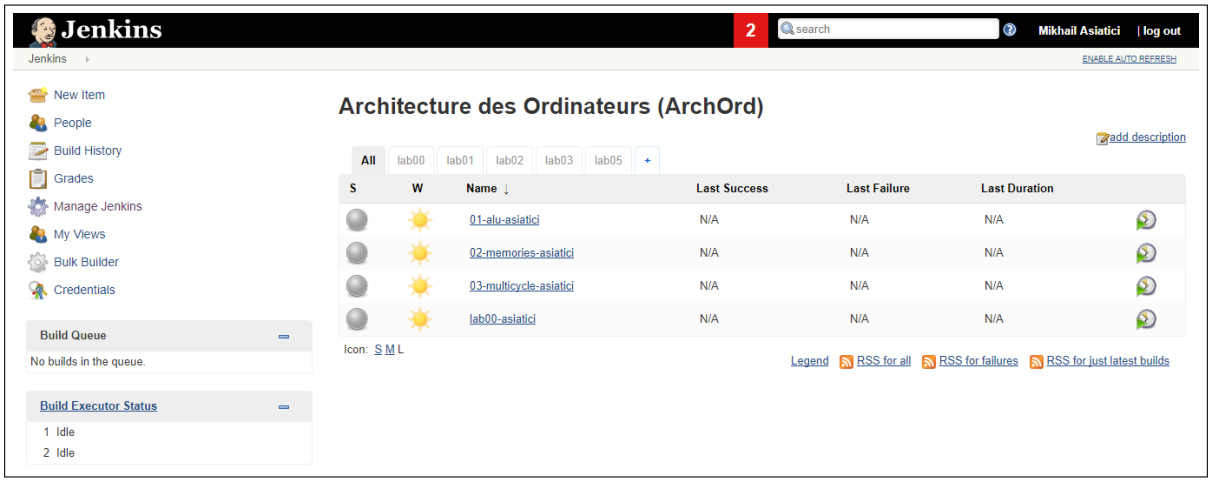

Figure 2: Dashboard

4 Submission / Build

This section explains how to submit the files and launch a build into Jenkins.

1. On the dashboard push the  button of a selected lab. This will redirect you to the submission page. Here is how the submission page would look if you click on the build button of the lab called **lab00-asiatici** (which, in your case, will be called **lab00-[your GASPAR username]**).

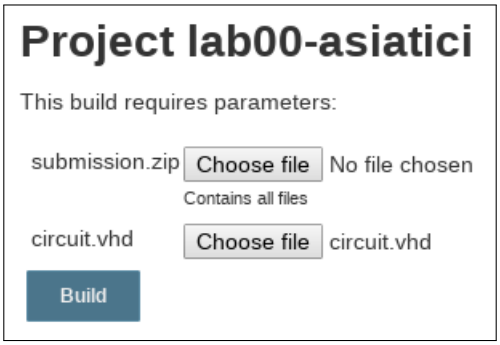

Figure 3: Files submission

2. Now you have the possibility to upload all required files separately **or** to upload a zip file containing all files. In this example, you would either upload the file called **circuit.vhd** or a zip file called **submission.zip**.

3. Once the files are submitted, you would click on the **Build** button. As soon as the build has finished, you could see it in the **Build History** located in the left pane of Jenkins:

Figure 4: Build History

4. If you wish to see the **Build Details** page, you should click on the date when the build was executed. Build details page allows you to see the evaluation results of your last submission.

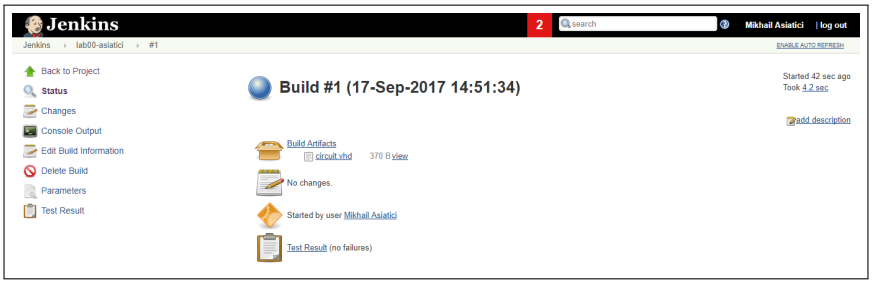

Figure 5: Build details

5. To open the detailed report of the evaluation, you should click on the **Console Output** of the current build using the  link.

Figure 6: Console Output

6. To open the **Test Result** of the current build, you should click the  link. The page that appears shows what happened during the evaluation.

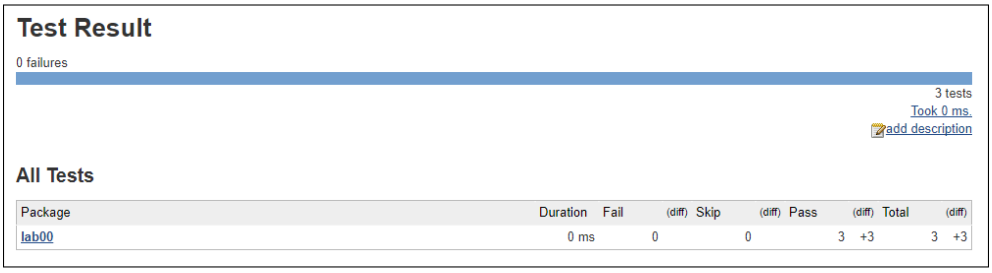

Figure 7: Test Result

7. Returning to the **dashboard** after the submission allows you to see the current state of your labs and submissions.

Figure 8: Laboratories list

5 Exercise

To get more familiar with this submission system, try now to upload the following code as a submission to **lab00**. Make sure that after uploading you build your code and check the preliminary results.

This exercise **is not** graded.

```
library ieee;
use ieee.std_logic_1164.all;

entity circuit is
  port (
    A : in std_logic;
    B : in std_logic;
    C : in std_logic;
    D : in std_logic;
    E : in std_logic;
    F : out std_logic
  );
end circuit;

architecture rtl of circuit is
begin

  F <=  A AND B when E = '0' else
        C OR D when E = '1' else
        '0';

end rtl;
```