Lab Deliverables

There are 4 tasks you are required to submit in this lab.

1. In-lab activity (1 point)
You will be required to demonstrate your progress to the TA or the instructor during lab time.

2. Analyze bugs (8 points)
Your first task is to analyze 10 bugs of your choice found by the FindBugs tool in the HospitalSystem project. Choose the bugs from all different ranks (Of Concern, Troubling, Scary, Scariest) and confidences (Low, Normal, High) and try to decide whether the given bug is an actual fault or a false-positive (instructions for that can be found from the document “Analyzing an issue”). In case of an actual fault, try to think of a solution to the problem.

For each bug fill out a row in the following table, the first one is given as an example:

<table>
<thead>
<tr>
<th>Bug description and location</th>
<th>What seems to be the problem?</th>
<th>Is this a false or a true positive? Should this bug be fixed? If yes, then how, otherwise why not?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Exception created and dropped rather than thrown Person.java:15</td>
<td>This code creates an exception (or error) object, but doesn't do anything with it.</td>
<td>This is a true positive and should be fixed. Besides simply creating the instance of the exception, it should also be thrown. The fixed line would be: throw new Exception(&quot;Birthyear cannot be in the future!&quot;);</td>
</tr>
</tbody>
</table>
3. **Compare methods (1 point)**

Your second task is to briefly compare the benefits of using static code analysis tools versus dynamic testing. State at least one concrete benefit for both methods.