AI Collaboration & Originality Report

Course: Bachelor of Science in Computer Science

Project: Ticket Management System

Student Information

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- **Date:** Feb 3, 2026

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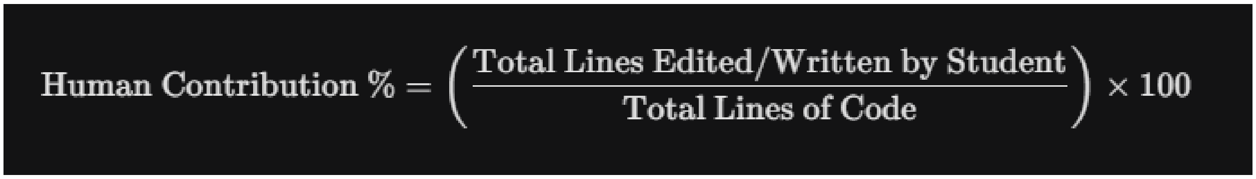
1. Code Composition & Ratio

Estimate the percentage of the final codebase that was authored by you versus generated by an AI (e.g., ChatGPT, Claude, GitHub Copilot).

Calculation Formula: >



$$\text{Human Contribution \%} = \left(\frac{\text{Total Lines Edited/Written by Student}}{\text{Total Lines of Code}} \right) \times 100$$

- **Human-Authored Lines:** 707 (14 + 108 + 10 + 38 + 57 + 86 + 74 + 101 + 67 + 65 + 87)
- **AI-Generated Lines:** 69 (8 + 28 + 21 + 12)
- **Total Lines of Code:** 776
- **Human Contribution:** 91.10%
- **AI-Generated:** 8.90%

Note: Submissions with >80% AI-generated code will require a mandatory logic interview.

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2. The Prompt Log

List the primary prompts you used to generate code snippets or solve logic hurdles.

1. How to make it so the dropdown’s default value in the Actions column is always the current status of the request and is therefore dynamic?

    - *It’s correct and working response was this*:

      ```
      <option value="Pending" <?= $row['STATUS'] === 'Pending' ? 'selected' : '' ?>>Pending</option>
      ```

2. How to make it so the date is not in this simple format *date("Y-m-d H:i:s");* but rather like this: Feb 3, 2026 11:12.

    It’s response was like this:

    ```
    if (isset($_SESSION['latestLoginTime'])) {

        $dt = new DateTime($_SESSION['latestLoginTime']);

        echo $dt->format("M j, Y H:i");

    }
    ```

    A a $_SESSION['latestLoginTime'] = date("Y-m-d H:i:s"); is required to be declared in the backend in order to work.

3. What is causing the error in inserting the request?:

    ```
    INSERT INTO Ticket

    (USER_ID, DESCRIPTION, REQUEST_TYPE, STATUS, CREATED_AT, LAST_UPDATED)

    VALUES (?, ?, ?, ?, NOW(), ?)
    ```

    Turns out I only had 5 placeholders yet 6 parameters, and that it really only needed to bind four values. These specifically: $userId, $description, $requestType, $status. I then declared them.

Additional: Had some help regarding the JOIN SQL queries.

3. Refactoring & Human Intervention

AI code often requires "tweaking" to fit specific project requirements. List **three specific changes** you made to the AI's output to improve or fix it.

- *Regarding the first primary prompt I provided above, the AI’s first solution was actually like this*:

```
<!-- hidden ticket id -->
<input type="hidden" name="ticket_id"
       value="<?= htmlspecialchars($row['TICKET_ID']) ?>">

<!-- dropdown -->
<td>
   <select name="status" required>
      <?php
      $statuses = [ 'Open', 'Pending', 'Ongoing', 'Accepted', 'Rejected',
         'Closed', 'Completed', 'Failed' ];

      foreach ($statuses as $status):
      ?>
         <option value="<?= $status ?>"
            <?= ($row['STATUS'] === $status) ? 'selected' : '' ?>>
            <?= $status ?>
         </option>
      <?php endforeach; ?>
   </select>
</td>
```

It didn't really work though, and I felt it was too long and complicated, so I ended up just changing it.

- The second prompt was correct and working, but I tweaked it by just modifying the CREATED_AT and LAST_UPDATED column to this:

```
    <?php

        $created = new DateTime($row['CREATED_AT']);

        echo $created->format("M j, Y H:i"); // formats the date

    ?>

</td>

<td>

    <?php

        $updated = new DateTime($row['LAST_UPDATED']);

        echo $updated->format("M j, Y H:i");
```

?> so it's direct and there's no need for a $_SESSION['latestLoginTime'] = date("Y-m-d H:i:s") to be declared in the backend. I also applied it to the other pages necessary.

- With the third prompt, AI declared $status = 'Open';. I changed this to 'Pending' as that is the default value. I also modified the LAST_UPDATED to just be NOW() and not a ? anymore.

4. Logic Deep-Dive

In your own words, explain the data flow of your PHP script. Specifically, what happens between the user clicking "Submit" and the final message appearing on the screen?

- First, the login page shows up. Since this system is designed to only have one manager (for now), they already have predefined credentials in the User table in the database; they just need to input them. If the "Login" button is clicked with the correct credentials, it automatically redirects them to the Manager Dashboard page, where they can see the following users that have signed up as well as the ticket requests. Secondly, already registered users will also need to log in; however, they have the Requestor dashboard, where they can only see their respective profile pages and make requests and ticketing. They can't, however, edit or delete any of them. *backend/login-handler.php* handles all the logic, with different pages displaying depending on the role. The *backend/ticket-handler.php*, meanwhile, handles the logic of the requestor inserting ticket requests and the manager updating them.

- When signing up for the first time, the user will have to click the “Sign Up” hyperlink in the login page, which will redirect them to the Sign Up page, where they get to register. After completing the input fields, a generated password will pop up, which they will need to copy or save in order to log in again. After receiving the password, it will redirect back to the login page where they can finally put in their credentials. After clicking the “Login” button, it will take them to their respective profile page.

5. Security & Integrity Audit

Identify the specific methods you implemented to secure your form.

- **How did you prevent Cross-Site Scripting (XSS)?**
  - [✅] htmlspecialchars()
  - [✅] Other: The PHP session-based authentication protects the pages. The user input also comes from a controlled database source.

- **How did you validate the data?**
  - [ ] filter_var()
  - [✅] empty() checks
  - [ ] Regex (Regular Expressions)
  - [✅] Other: password_hash(), password_verify(), prepare(), bind_param()

Student Declaration

I certify that the human-authored portion of this code is my own work and that I have disclosed all AI assistance used in the creation of this project.

Signature: ______________________________ **Date:** Feb 3, 2026