Assignment 2

Task 6

**Author Details**

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**Bug Report 1**

Description:

The find\_patron\_by\_name function in search.py does not perform a case insensitive search for patrons. As a result, it fails to find patrons whose name is the same as input but has different casing.

Steps to reproduce:

1. Create a list of Patron objects which include "Alice Smith” as patron\_data.
2. Call find\_patron\_by\_name function with name "alice smith" and patron\_data.
3. Check the returned list of patrons.

Expected behaviour:

The function should return a list containing all patrons with the name "alice smith" regardless of the casing, including "Alice Smith".

Actual behaviour:

The function returns a list that does not contain “Alice Smith” or an empty list if other results that match does not exist.

**Bug Report 2**

Description:

The can\_borrow\_book function allows a patron to borrow a book for up to 8 weeks but does not give the output for the length of the loan correctly. It should accept loan requests up to 8 weeks (56 days) however it rejects it when the loan Is for 56 days.

Steps to reproduce:

1. Call can\_borrow\_book with the following parameters:

patron\_age: 30

length\_of\_loan: 56

outstanding\_fees: 0.

1. Observe the result which should return True.

Expected behaviour:

The function should return True when the length\_of\_loan is 56 and the outstanding\_fees 0 since the method permits loan requests for up to 8 weeks if there is no outstanding fees.

Actual behaviour:

The function returns false since one of the lines reject the length\_of\_loan starting from 56 days, which does not match the description of the method that permits loan requests for up to 8 weeks (56 days).

**Bug Report 3**

Description:

The can\_borrow\_carpentry\_tool function incorrectly disqualifies patrons who are 18 years old from borrowing carpentry tools. According to the age classification in the type\_of\_patron function, patrons aged 18 should be considered "Adult" but the current implementation checks for patron\_age <= 18 and disqualifies them.

Steps to reproduce:

1. Call can\_borrow\_carpentry\_tool with the following parameters:

patron\_age: 18

length\_of\_loan: 10

outstanding\_fees: 0.0

carpentry\_tool\_training: True

1. Observe the result which should return True.

Expected behaviour:

The function should return true for a patron aged 18 with no outstanding fees, has completed carpentry tool training and requests a loan of 14 days or less should be allowed to borrow a carpentry tool.

Actual behaviour:

The function returns false because patron\_age is 18 and the line incorrectly disqualifies any patron whose age is 18 even though they should be considered “Adult” in the type\_of\_patron function previously and thus qualify.