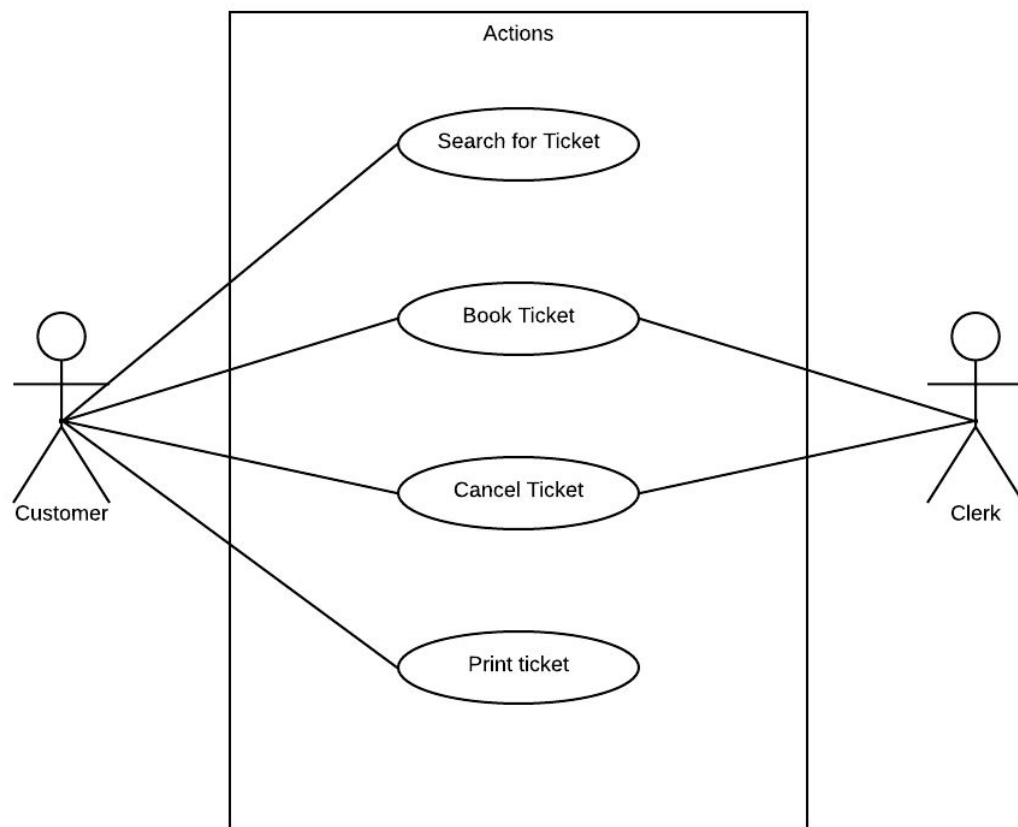
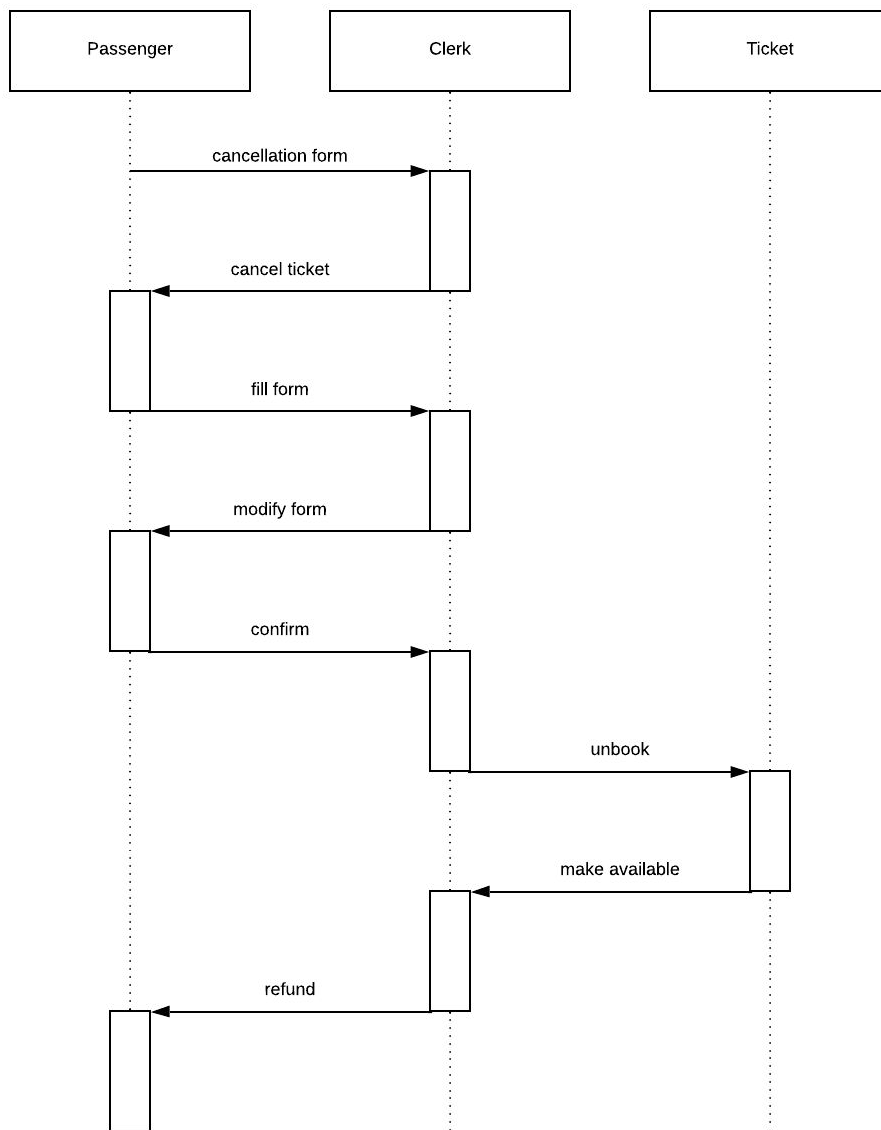


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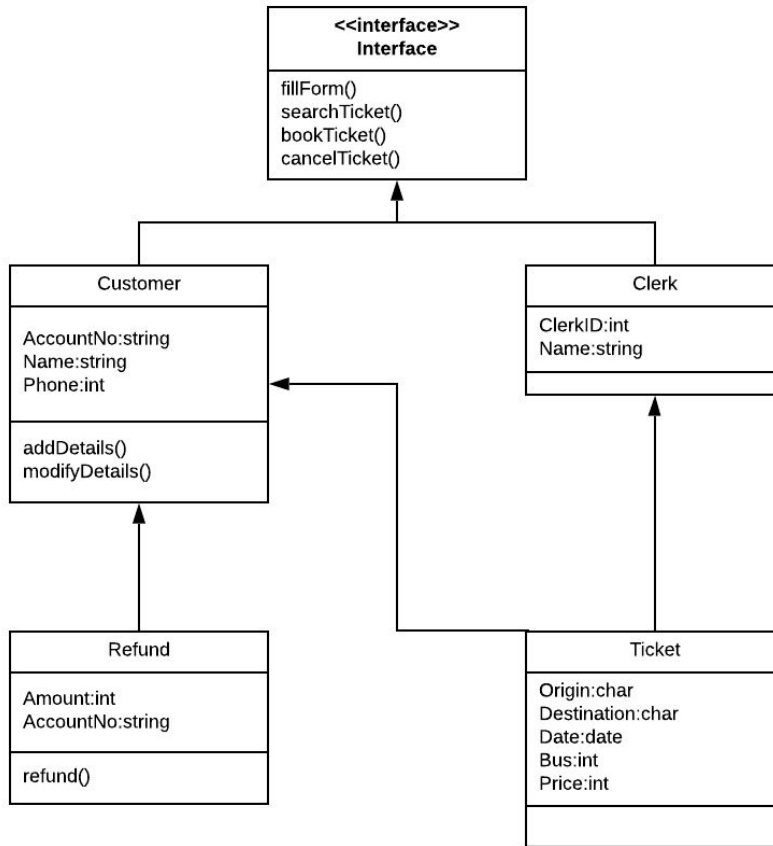
**Task 1: Use Case Diagram**



## Task 2: Sequence Diagram

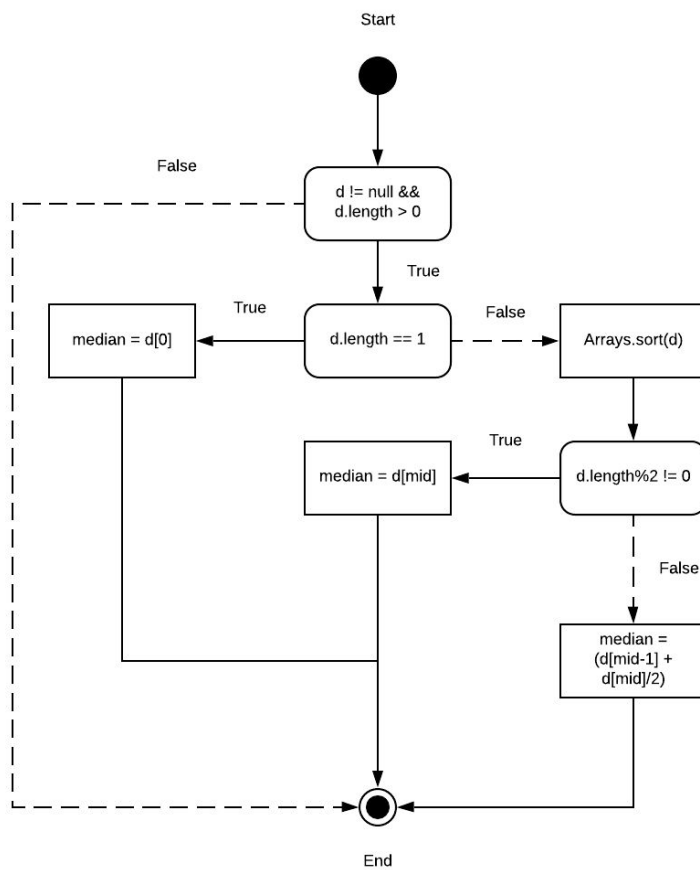


### Task 3: Class Diagram



### Task 4: Testing

- a) Since **&&** is the conditional *AND* operator and **&** is the bitwise *AND* operator, replacing it could yield a different result. The conditional operator evaluates the left side of the operation, and if it is true, it will proceed to evaluate the right side of the operation. On the contrary, the bitwise operator will evaluate *both* sides of the equation. Something important to note, however, is that the **&** operator is not considered bitwise for boolean operands, only if they are integral.
- b) *See Below*



c) In order to satisfy the statement coverage for the method, a valid input for the method `median()` would be an array with the values `[1, 2, 3]` or `[1, 2, 3, 4]`