**Project Documentation**

**Basketball Player Manager**

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**Course:**

**Algorithms and Data Structures**

**Docent:**

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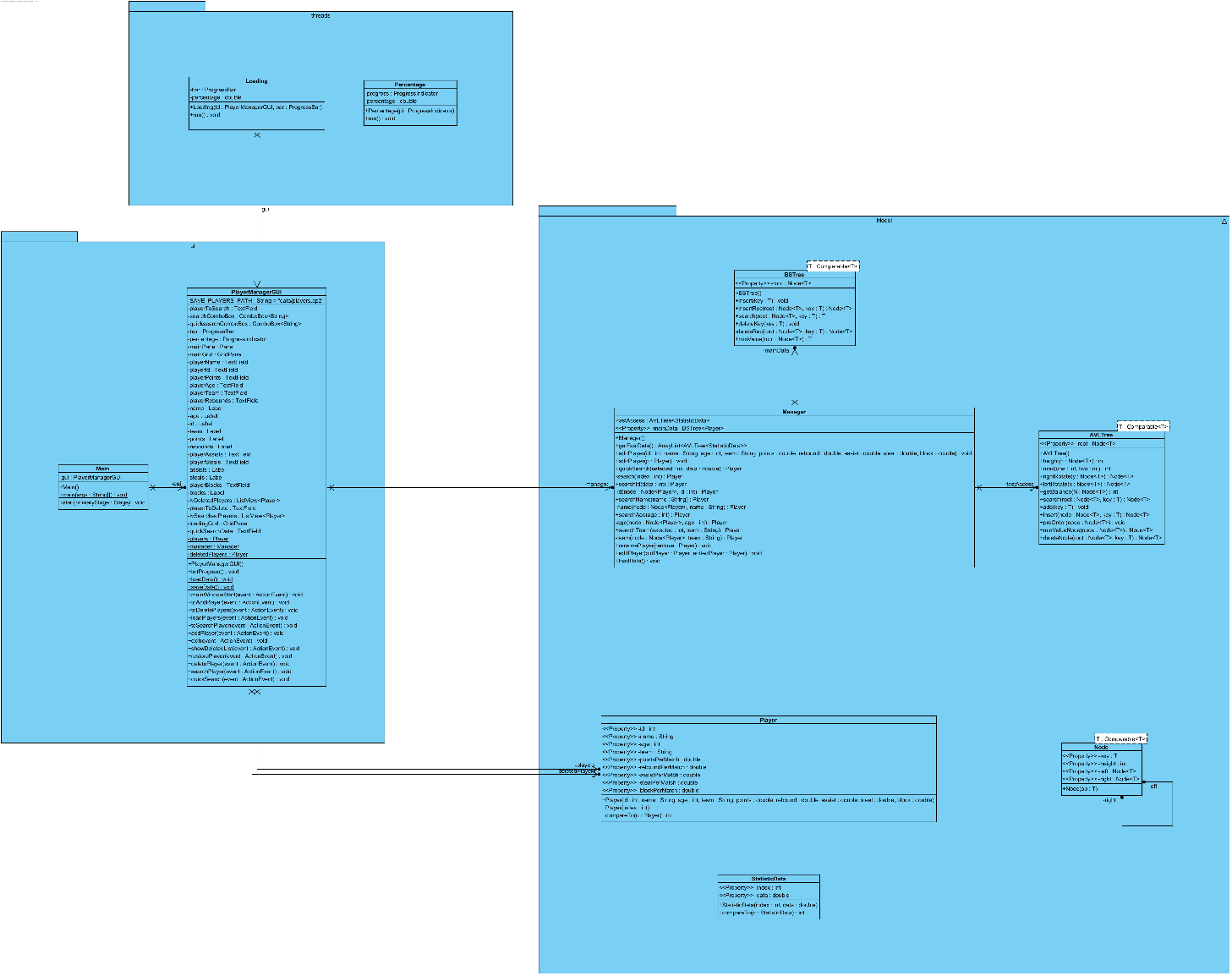
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**Functional Requirements**

The program must be able to:

1. **Req1. Implement** a tool for handling large information that allows data to be entered, either in bulk (with .csv files) or through an interface.
2. **Req2. Delete** data.
3. **Req3. Modify** data.
4. **Req4. Search** for data.
5. **Req5. Make** player queries using the statistical categories included as search criteria.
6. **Req6. Include** the following items to the data associated with each player: name, age, team and 5 statistics.
7. **Req7. Recover** players according to the selected search category and the value given for it
8. **Req8. Use** balanced binary search trees to quickly access player data so that the search takes O (log n) time for those that have associated indexes.
9. **Req9. Show** the time it takes to make a query.
10. **Req10. Allow** the customer to search on two statistical criteria using ABB as a framework for index management.

**Class Diagram**



*To see the class diagram of the model with a better quality, please refer to the end of the document*.

**Unit Test Class Diagram**

*To see the unit test class diagram in a better quality, go to the end of the document*

*of the document*

**AVL Unit Test Design**

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| **Name** | **Class** | **Scenary** |
| **setupScenary1** |  |  |
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**AVL Test Case Design**

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| **Test objective** | | | | |
| **Class** | **Method** | **Scenary** | **Input Values** | **Result** |
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**BST Unit Test Design**

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| **Name** | **Class** | **Scenary** |
| **setupScenary1** |  |  |
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**BST Test Case Design**

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| **Test objective** | | | | |
| **Class** | **Method** | **Scenary** | **Input Values** | **Result** |
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**Model Unit Test Design**

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| --- | --- | --- |
| **Name** | **Class** | **Scenary** |
| **setupScenary1** |  |  |
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**Model Test Case Design**

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| --- | --- | --- | --- | --- |
| **Test objective** | | | | |
| **Class** | **Method** | **Scenary** | **Input Values** | **Result** |
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