|  |
| --- |
| CLASS  Grade Class |
| RESPONSIBILITY   1. Receives message from **\* Class** containing a string of many grades. Converts string of grades into an integer-type list of grades. 2. Receives new grade from **\* Class** and adds new grade to grade list. 3. Receives message from **\* Class** requesting grades. Returns grade list as an array. 4. Receives message from **\* Class** requesting grade average. Calculates and Returns a rounded version of the grade average. |
| COLABORATION   1. **\* Class** |

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| CLASS  Database Class |
| RESPONSIBILITY   1. Reads user information text file and creates user dictionary to store all information unique to each user. 2. Reads school class information text file and creates school class dictionary to store all information unique to each school class. 3. Add new teacher to user dictionary. 4. Verify student and teacher login information. 5. Set ID of current user. |
| COLABORATION |

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| CLASS  MainPage Class |
| RESPONSIBILITY |
| COLABORATION |

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| --- |
| CLASS  Class |
| RESPONSIBILITY |
| COLABORATION |

|  |
| --- |
| CLASS  Class |
| RESPONSIBILITY |
| COLABORATION |

User Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field Name | Caption | Data Type | Field Size | Notes |
| username |  | string |  |  |
| password |  | string |  |  |
| firstName |  | string |  |  |
| lastName |  | string |  |  |
| classes |  | string |  |  |
| isTeacher |  | bool |  |  |

Grade Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Item | Caption | Data Type | Field Size | Notes |
| grades |  | List<int> |  |  |

SchoolClass Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Item | Caption | Data Type | Field Size | Notes |
| className |  | string |  | Name of Class |
| classID |  | string |  | ID of Class |
| teacher |  | User |  | Name of Teacher |
| students |  | List<User> |  |  |
| grades |  | Dictionary<User, Grade> |  |  |

Database Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Item | Caption | Data Type | Field Size | Notes |
| isTeacher |  | bool |  |  |
| currentUser |  | User |  |  |
| currentClasses |  | List<SchoolClass> |  |  |
| users |  | Dictionary<string, User> |  |  |
| classes |  | Dictionary<string, SchoolClass> |  |  |
| classNames |  | List<string> |  |  |