HOME AWAY FROM HOME

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# A Campus Oriented Application

**PROJECT OVERVIEW**: A Campus Oriented Application that provides information on Services Useful to Students.

**Features**:

* + Location Based Services, Rating of Services, Students management,

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| **Main Functions** | **CLASSES** | **Data Structures** |
| * exit(), * help(), * bounds(), * find (). * save(), * load (), * add\_Service(), * list\_Services(), * add\_Student(), * list\_Student(), * leave\_Student(), * go\_Student(), * move\_Student(), * list\_Users(), * where\_Student(), * visited\_Locations() * evaluate\_Service(), * ranking\_Services(), * ranked\_Services(), * tag\_Search(), | HomeAwaySystem - Main controller | List interface - Main collection ADT |
| GeographicArea - Manages bounds and collections | ArrayListClass - List implementation |
| Service (abstract) - Base for all services | Iterator interface - For traversal (implemented with TwoWayList) |
| Evaluation - Service review data |  |
| Student (abstract) - Base for all student types |  |

**Key ADT Implementations  
For GeographicArea:** List<Service> for storing all services (insertion order); List<Student> for storing all students

**For Service:** List<Evaluation> for storing reviews,List<Student> for eating/lodging occupancy tracking

**For Student (Bookish/Outgoing)**: List<Service> for visited locations (visit order)

**Operations Needed:** Sequential search by name (services, students), Filtering by type/country/criteria, Sorting (alphabetical, by stars, by distance) [use of binary trees]

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