

## "Happy Kids" Primary School

Happy Kids has a number of classrooms (at most 60) organized in 3 floors, and 4 wings (E,W, S, N).

Each floor has s identified by a unique 2-symbol alphanumeric identification (wing, level), and contains a number of classrooms (at most 5).

Each classroom has an alphanumeric identification, and can accommodate a limited number of pupils (there are a number of desks in the room, between 20 and 26).

Pupils are identified by their Social Security number (SSN, 13 digit unique number), name, and birth date (4-digit year, 2-digit month, 2 digit day). There are pupils who are out on a trip the moment, and thus they are not currently present in any classroom. When a pupil returns to the school, he/she should be allowed in the same classroom where he/she was before getting out.

Two static methods are provided, in the package **school1**, class **Provided**:

**generateStudentInfo**: which generates information about a pupil (student), and returns an array of strings with SSN (13 digit unique number), name, and birth date (4-digit year, 2-digit month, 2 digit day), in this order, and has no arguments.

**generateClassroomInfo(char wing, int floor)**: which generates info for a classroom area, and returns and array of strings with identification and number of desks, in this order. Arguments are: wing (see above), floor (see above). E.g. E3-10A.

Develop a stand-alone application which supports the following operations:

1. Populate the school with pupils
2. Make a number of pupils get out on a trip (at random)
3. Make a specific pupil (identified by SSN) definitely leave the school
4. List all the persons born on the same date, complete with the classroom he/she is in
5. List all the pupils found on a given floor, in a given classroom.
6. List all the pupils who went for a trip.
7. Place a pupil in the first available classroom (remember there are persons who are temporary out), as close as possible to other persons who were born on the same date
8. Find an pupil (identified by SSN) who is at school indicating his/hers location (i.e. the floor and classroom). Note that they might be out.