

## Design Problem - Tech With Tim School of Programmers

The Tech With Tim school of programmers needs a new system to track all of its **students**, **professors** and **courses**. It wants to keep track of what **courses are offered**, **who teaches each course** and **which students are enrolled in those courses**. It would also like to be able to track the **grades of each of its students** across all courses. For **each student and professor** the school needs to know their **address**, **phone number**, **name** and **age**.

Each course has a **maximum** and **minimum** number of students that they can enrol. **If the minimum number of students is not reached then the course will be cancelled**. Each course is taught by at least one professor but sometimes may be taught by many.

Professors are **salaried** employees at the Tech With Tim School of programmers and therefore we need to keep track of **how much they make each year**. If a **professor teaches more than 4 courses in a semester** then they are granted a one time bonus of \$20,000.

Students can be both **local** or **international students** and **full** or **part time**. A student is considered a **part time student** if they are enrolled in 1 or 2 courses during any given semester. The **maximum amount of courses a student may be enrolled in at one time is 6**. Students receive **grades** from each course, these grades are numeric in the range of 0-100. Any students that have an **average grade across all enrolled courses lower than 60%** is said to be on **academic probation**.

**NOTE: This system will be reset and updated at the end of each semester**