**Tasks** (coursework, quiz, survey...)

Every task only has an **end time**.

**Events** (basically lectures, seminars, exams... or possibly special events like tutor meetings)

Every event has a **start time** and **duration**, a **site** to take place, and a participant list. Most events like lectures and exams should belong to a course. **Attendance** is needed for events.

Assumptions and thoughts:

The schedule of a **course** cannot conflict

check if there is conflict when adding or changing events to a course by staff

The schedule of a **student** or a **staff** cannot conflict

check if there is conflict when a student is choosing optional courses or a staff is arranging events for a student

In database, each student/staff table should store its own timetable, or timetable is generated by searching within the event list.

A program has **compulsory** **courses** and **optional** **courses** (we can start from only compulsory courses)

Optional course may be public or only within certain program.

A student must belong to a program. A program should have a compulsory course list and an optional course list.

All events time like exams time may need to be set completely before student can select the optional courses.

The compulsory courses of a **program** cannot conflict

The **optional** courses of a **program** cannot conflict with **compulsory** courses.

Conflict between **optional** courses may be allowed when setting by staff (so student can only choose one between them)

**Default available time** (like all lectures should happen between 9:30am to 17:30pm)

**Default time block** (time block for events is pre-fixed, like 9:30am-10:30am, 10:30am-11:30am, may vary from different kinds of events)

Advantage: Common in real practice; easier for visualization; Reduce possible errors

Basic functions:

Check if the time period coincides

Generate a timetable for a program, course, student or a site (filter by time range etc.)

Timetable display