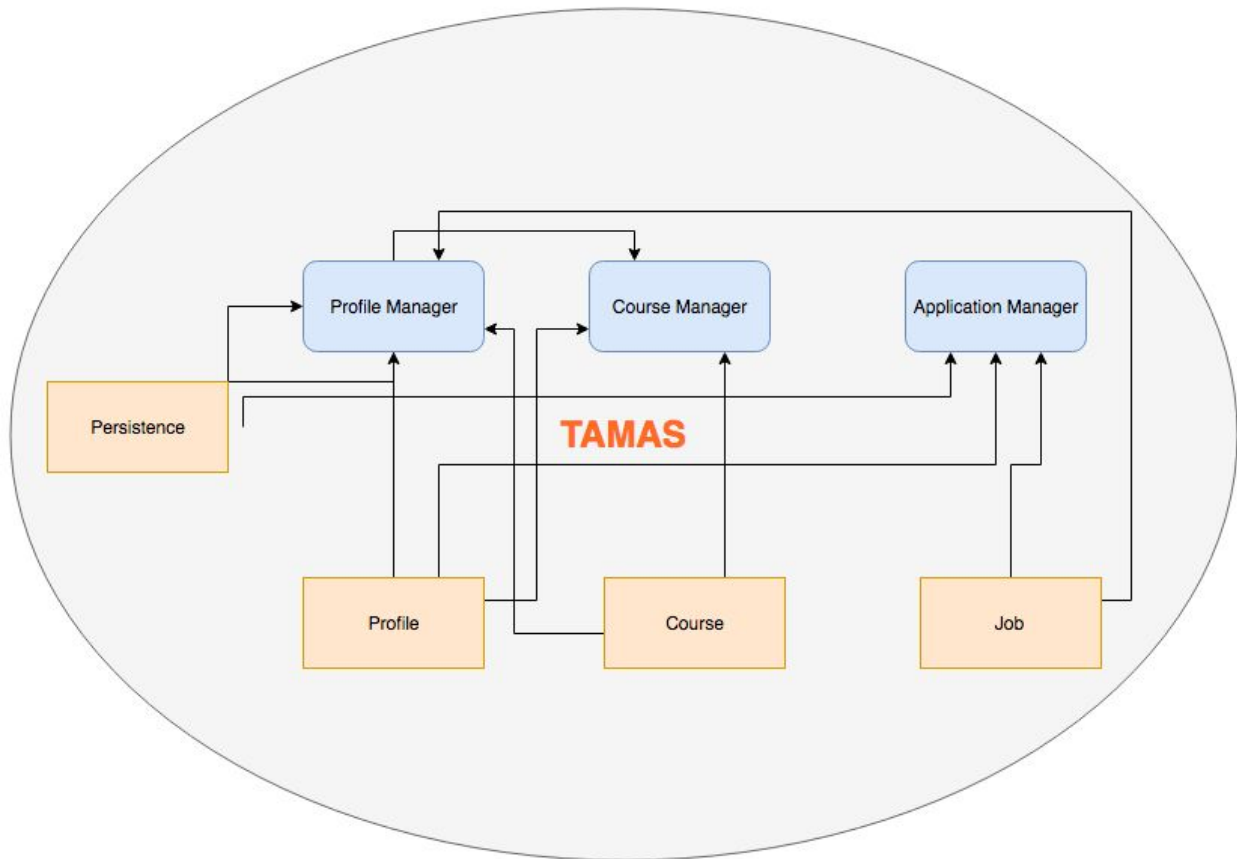


INTEGRATION STRATEGY



Integration Strategy

The strategy of integration will follow a bottom-up approach. The system will first have all the unit tests done for each class. Then the manager classes will integrate the units together into discrete subsystems. To reduce cases where a bug in one manager will reveal a bug in a subclass that will need to be modified and thus require a modification in another subsystem, the subsystem with the largest amount of integration will be tested first. This is the Profile Manager. The diagram above shows that profile manager will integrate Persistence, Profile, Course and Job. Following Profile Manager, the other two subsystems can be tested in parallel, however we will choose to prioritize Course manager first. Using EclEmma, we aspire to have near 100% code coverage. This would imply that there should be near 100% statement and branch coverage. Since our mobile app is only for students, there is no need to test the course

manager on the mobile application. Likewise, the web app will not need to test the application manager since the web app is just for teachers. All the tests that follow are done programmatically rather than through a user interface. For example, Applying for a job will involve just creating an instance of an application and attributing it a profile, a job, etc. The system test will test whether the user can create a form and apply through the mobile application, for example.

Profile Manager

- Profile
- Persistence
- Job

Tests:

- Create Profile - Test that profile can be created in persistence. This will also test whether or not new profiles can have jobs as properties.
- Edit Profile - Test that profiles in persistence can be modified.
- Delete Profile - Test that profiles can be removed from persistence.

Course Manager

- Course
- Persistence
- Profile

Tests:

- Create Course - Test that Course Manager can create a course in persistence and link the course to profiles
- Edit Course - Test that Course manager can modify the scheduled times, profiles linked with the course, etc.
- Delete course - Test that courses can be removed from persistence.

Application Manager

- Profile
- Job

- Persistence

Tests:

- Create application - Test that an application can link a profile with a job in persistence.