ECSE 321 TAMAS - Deliverable 1

Group 15: Team members

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Younes Boubekeur	260681484
James Tang	260685449

Work plan/progress

Meeting 1: Sunday 2/5/17, Trottier 5104

- Collectively looked over project description
- Set up meeting times for future meetings

Meeting 2: Monday 2/6/2017, 4-8:30 PM, McLennan Library

- Discussed design questions and general project specifications
- Requirements Document (**finish**)
    - Functional/nonfunctional requirements
    - Actors and use cases
- Domain Model (**almost finished**)

Meeting 3: Wednesday 2/8/2017, 5 PM-9:30PM, McLennan Library

- Complete domain model (done)
- Complete statechart for class “job” (almost done)
- Begin requirement-level sequence/activity diagrams (discussed)

Meeting 4: Saturday 2/11/2017, 10 AM - 10 PM, Trottier 5105

- Complete requirement-level sequence/activity diagrams
- Work plan

Meeting 5: Saturday 2/11/2017, 1 PM - 10 PM, Trottier 5104

- Finalize document and submit deliverable

I. Functional/Non-functional System Requirements

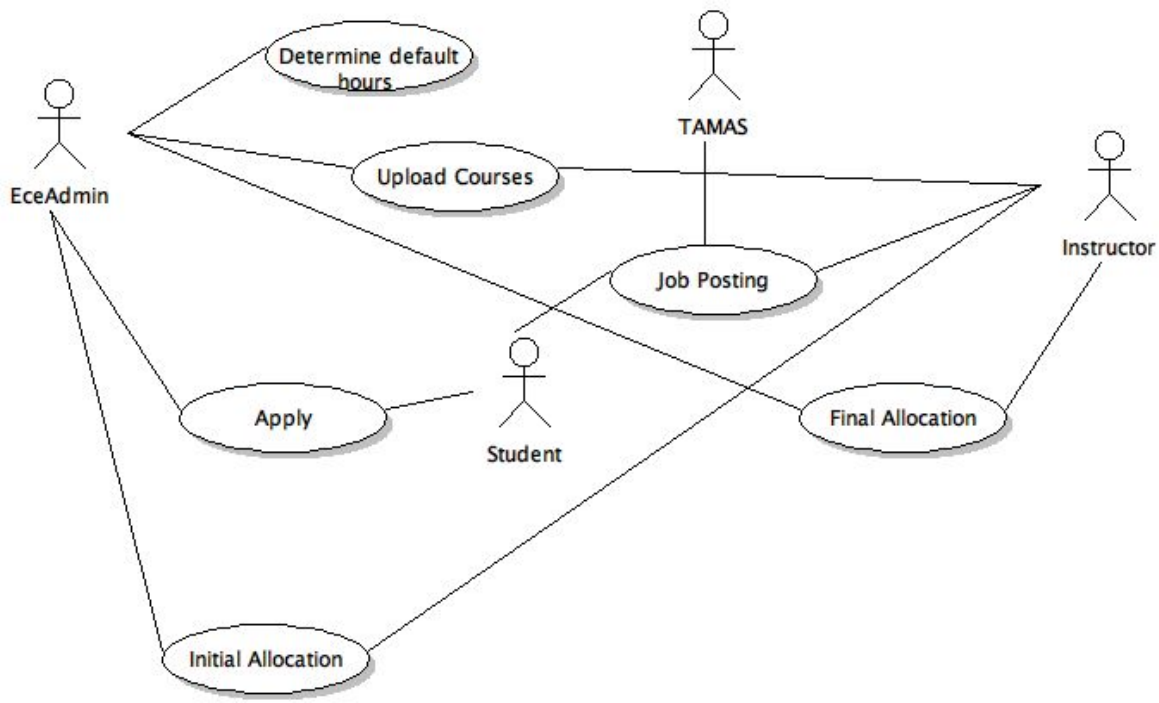
TAMAS Functional Requirements

Req. ID	Requirement
TFR.01	TAMAS shall determine default TA and grader hours based on a list of courses uploaded by the department that includes key course information.
TFR.02	TAMAS shall allow instructors to publish job postings for upcoming TAs and markers until a given deadline.
TFR.03	TAMAS shall allow students to apply to at most three unique jobs by submitting their applicant details (including the possibility of applying to a TA and grader job for the same course).
TFR.04	TAMAS shall determine the optimal candidate for each available job based on their availabilities and their student status.
TFR.05	TAMAS shall allow instructors to change the initial allocation of worker hours in the case that the budget is not exceeded.
TFR.06	TAMAS shall allow the department to approve final job allocations.
TFR.07	TAMAS shall prompt selected students to accept or reject job offers.
TFR.08	TAMAS shall allow the instructor to submit an evaluation for each TA and grader at the end of the course.

TAMAS Non-functional Requirements

Req. ID	Requirement
TNR.01	TAMAS shall be accessible on Desktop (full functionality), Web and Android (one each for TAs and instructors, in any order).
TNR.02	TAMAS shall prompt users to verify their identity in order to access the appropriate functionality.
TNR.03	TAMAS shall require less than 30 minutes of training time for users to learn how to use all features of the system.
TNR.04	TAMAS shall perform each of its operations in less than one minute.
TNR.05	TAMAS shall take less than 500 MB of disk space.
TNR.06	TAMAS shall have no more than two malfunctions per session of use.
TNR.07	TAMAS shall force-close at a rate less than one out of twenty sessions.

II. Actors and Use Cases



Use Case: Determine default hours
Successful Outcomes: PrimaryActor determines default TA/Grader hours.

Use Case Package	TAMAS
ID	UC-TAM-01
Use Case Goal	PrimaryActor successfully uploads the default TA/grader hours.
Actor(s)	Primary Actor: EceAdmin
Level	User-Goal
Precondition	None
Domain Entities	EceAdmin, TaJob, GraderJob

Use Case: Upload Courses
Successful Outcomes: PrimaryActor uploads a list of courses.

Use Case Package	TAMAS
ID	UC-TAM-02
Use Case Goal	PrimaryActor successfully uploads a list of Courses.
Actor(s)	Primary Actor: EceAdmin Secondary Actors: Instructor
Level	User-Goal
Precondition	None
Domain Entities	EceAdmin, Instructor, Course

Use Case: Job Posting
Successful Outcomes: PrimaryActor posts a job.

Use Case Package	TAMAS
ID	UC-TAM-03
Use Case Goal	PrimaryActor successfully uploads a JobPosting.
Actor(s)	Primary Actor: Instructor Secondary Actors: TAMAS, Student
Level	User-Goal
Precondition	EceAdmin has successfully uploaded a list of Courses as per {UC-TAM-02}
Domain Entities	Instructor, Job, JobPosting, Student

Use Case: Apply
Successful Outcomes: PrimaryActor applies to JobPosting

Use Case Package	TAMAS
ID	UC-TAM-04
Use Case Goal	PrimaryActor successfully applies to JobPosting
Actor(s)	Primary Actor: Student
Level	User-Goal
Precondition	None
Domain Entities	Student, Application, JobPosting, Job

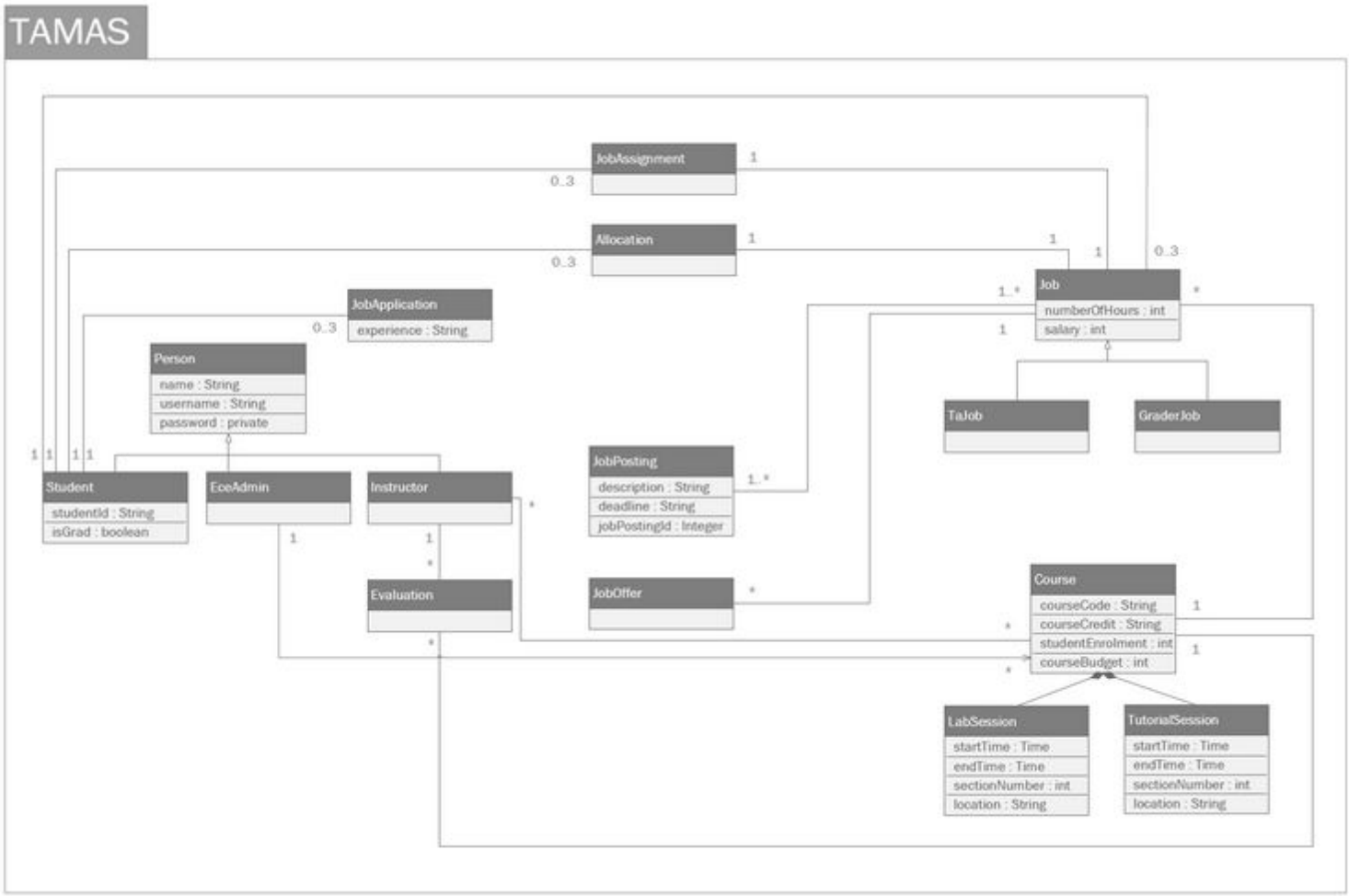
Use Case: Initial Allocation
Successful Outcomes: PrimaryActor determines an initial allocation.

Use Case Package	TAMAS
ID	UC-TAM-05
Use Case Goal	PrimaryActor successfully determines an initial Allocation.
Actor(s)	Primary Actor: EceAdmin Secondary Actor: Instructor
Level	User-Goal
Precondition	Student has successfully applied to a Job as per {UC-TAM-04}
Domain Entities	EceAdmin, Instructor, Allocation, Job

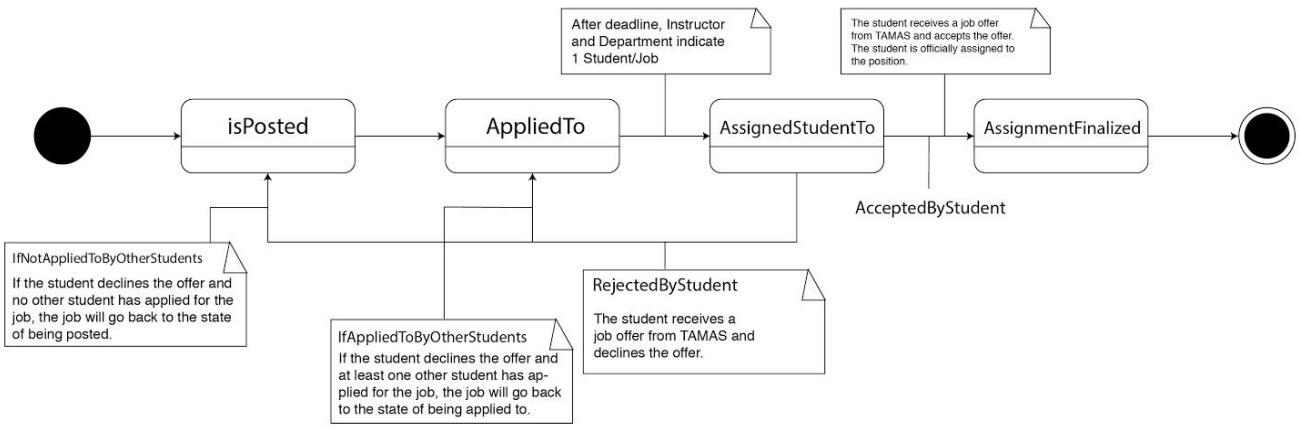
Use Case: Final Allocation
Successful Outcomes: PrimaryActor determines a final allocation.

Use Case Package	TAMAS
ID	UC-TAM-06
Use Case Goal	PrimaryActor successfully determines a final Allocation.
Actor(s)	Primary Actor: EceAdmin
Level	User-Goal
Precondition	EceAdmin has successfully determined an initial Allocation as per {UC-TAM-05}
Domain Entities	EceAdmin, Instructor, Allocation

III. Domain Model

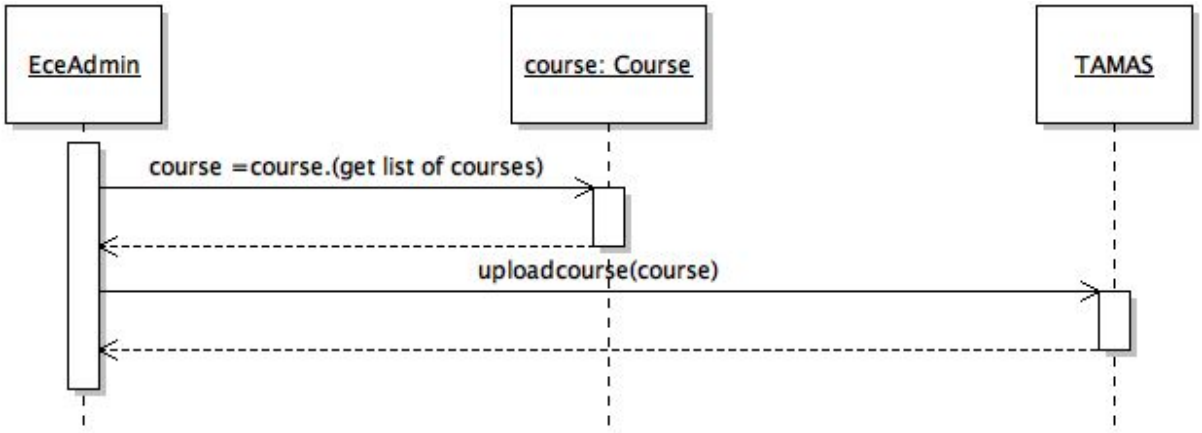


IV. Statechart for Class "Job"

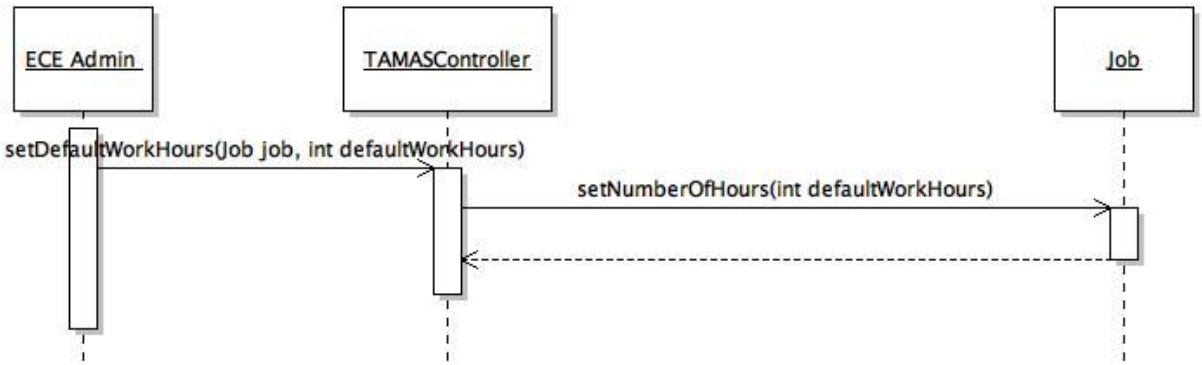


V. Requirements-level Sequence Diagrams

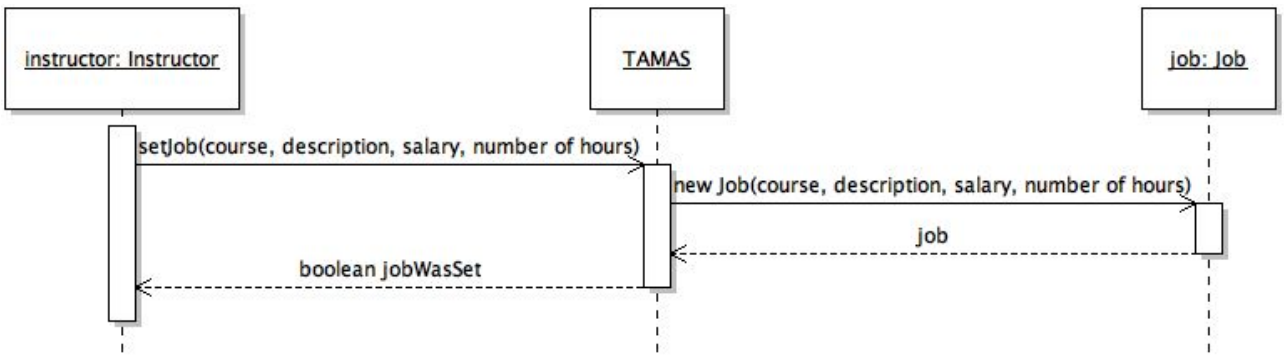
1) EceAdmin uploads course info to Tamas



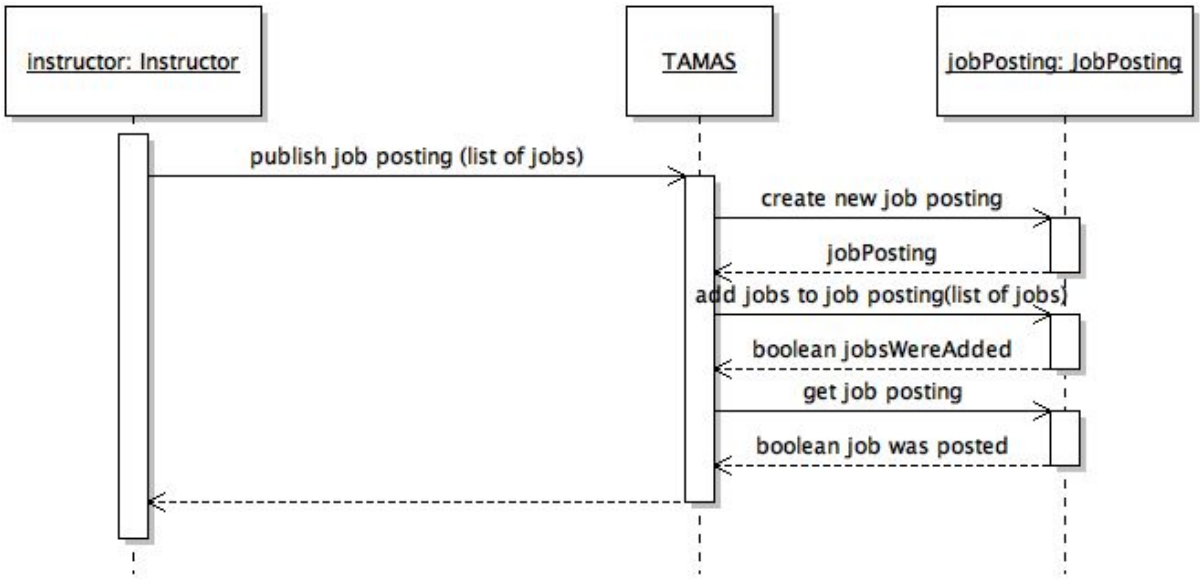
2) EceAdmin determines default TA/grader hours



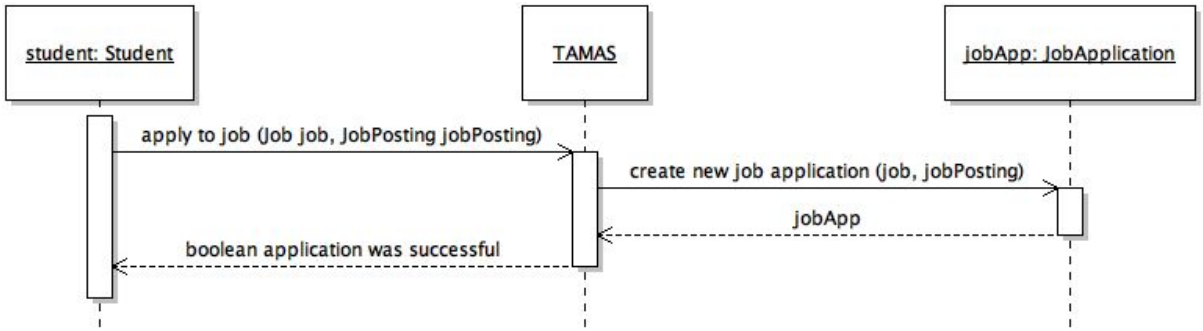
3) Instructor creates job



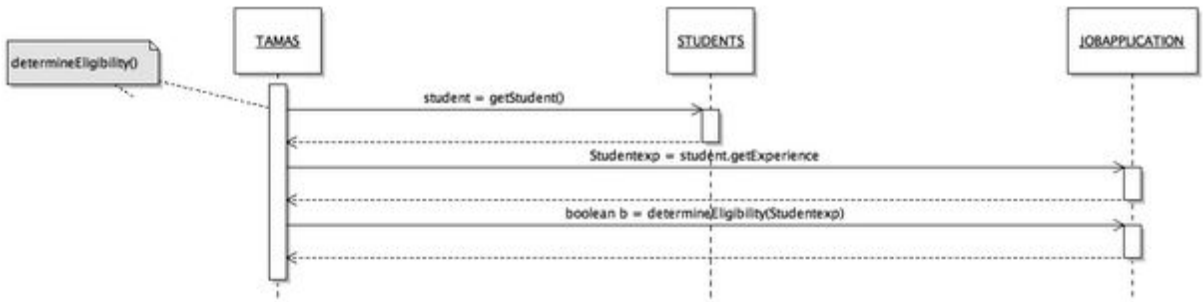
4) Instructor publishes job posting



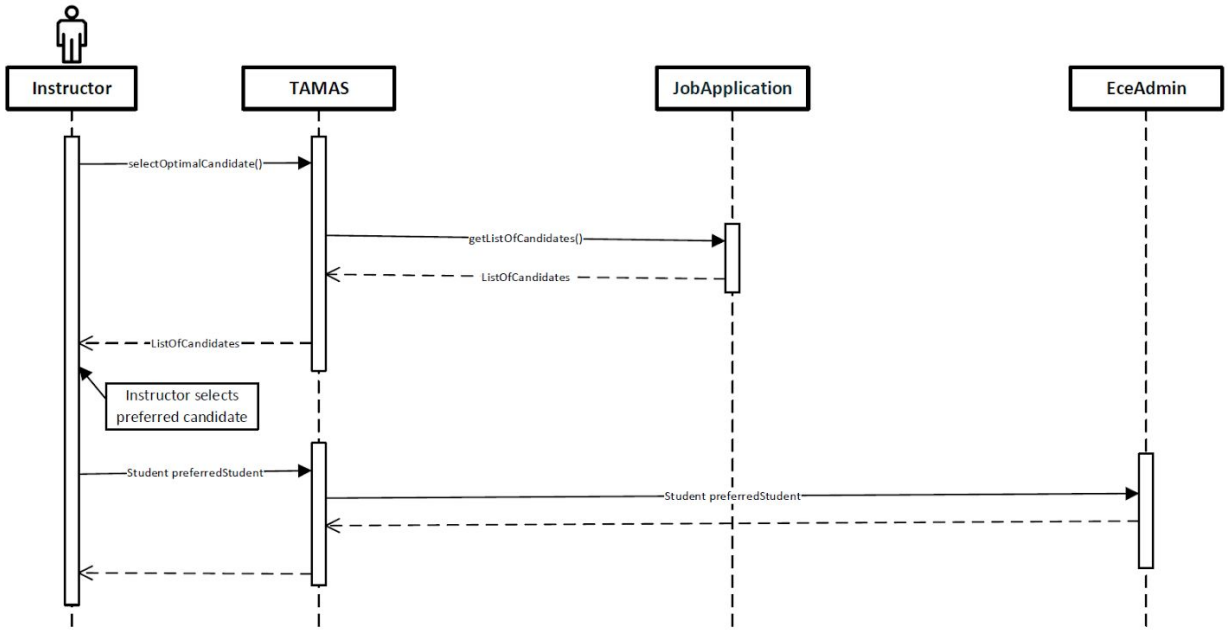
5) Student applies to job from job posting



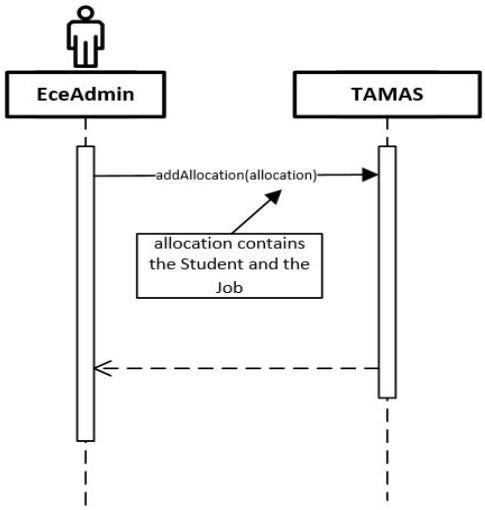
6) Tamas determines student eligibility



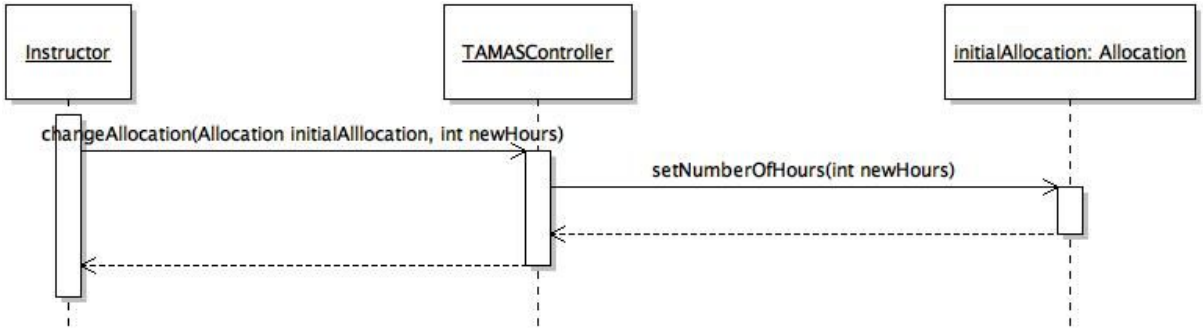
7) Instructor chooses optimal candidate for job



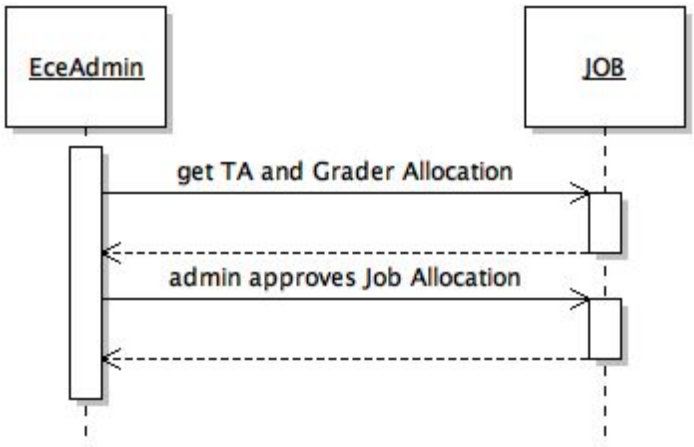
8) EceAdmin determines initial allocation



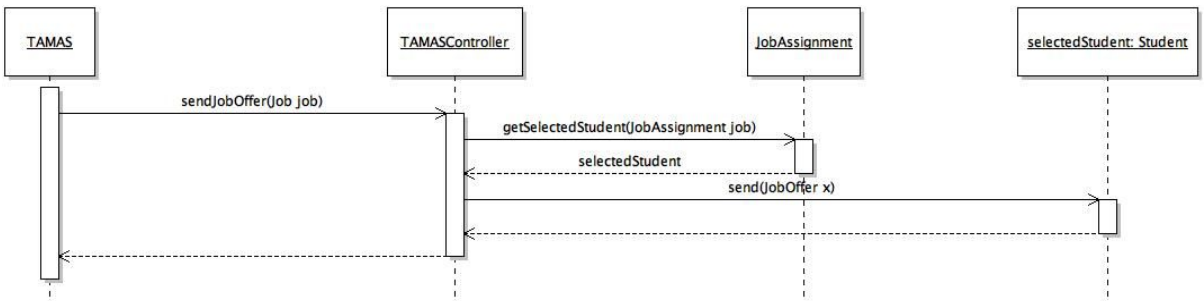
9) Instructor can change initial allocated hours, if necessary



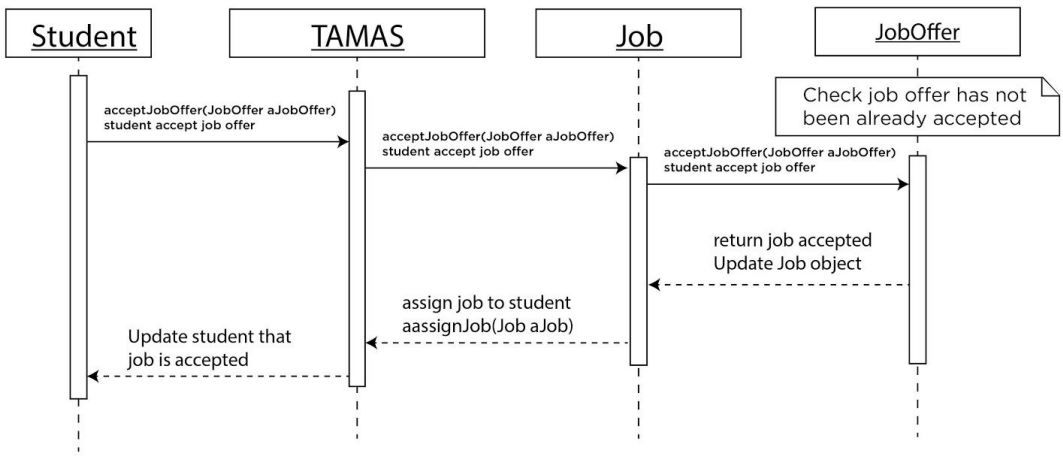
10) EceAdmin approves final job allocations



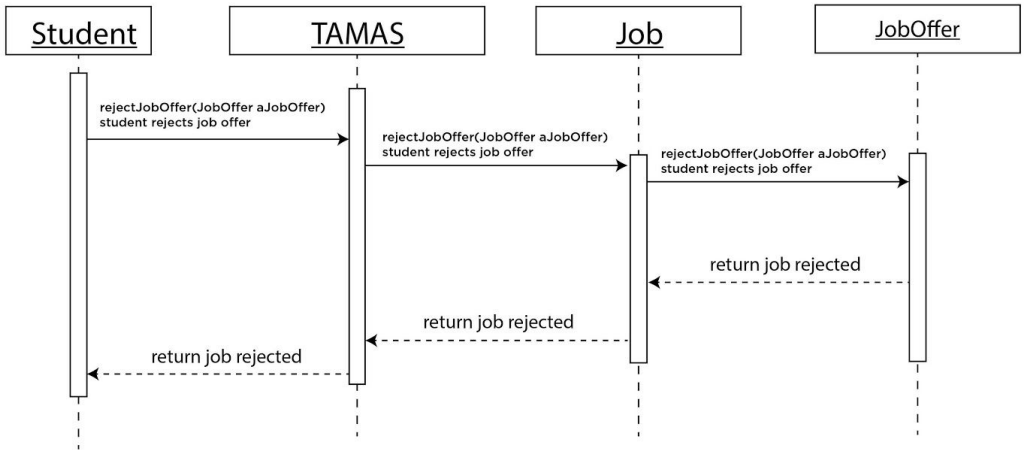
11) Tamas sends job offer to student



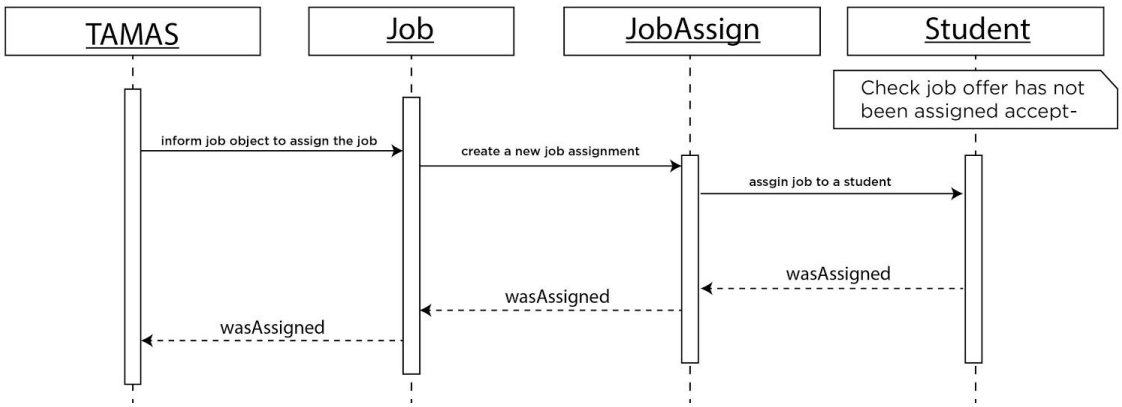
12) Student accepts job offer



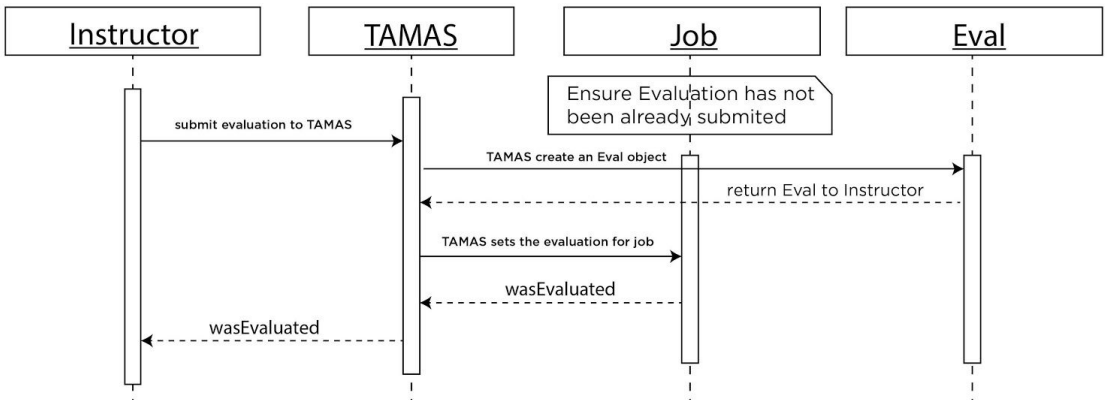
13) Student rejects job offer



14) Student is assigned to a job



15) Instructor submits evaluation for TA



VI. Work Plan and Progress

Meeting 1: Sunday 2/5/17, 3:00 PM - 5:30 PM, Trottier Building (2.5h)

Attendance:

Ebou Jobe
Wiam El Ouadi
Bijan Sadeghi
Younes Boubekeur
James Tang

Key Design decisions

No specific design decisions were made.

Task Distribution

1. Collectively looked over project description (All)
2. Collectively studied the requirements of the project (All)
3. Addressed some questions regarding the deliverable #1 (All)
4. Set up meeting times for future meetings (All)
5. Created meeting log (All)
6. Set up Github access (All)

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Meeting 2: Monday 2/6/2017, 4:00 PM - 9:00 PM, McLennan Library (5h)

Attendance

Ebou Jobe
Wiam El Ouadi
Bijan Sadeghi
Younes Boubekeur
James Tang

Key Design decisions

TA will not leave job throughout the semester.
Lab sessions and tutorial sessions will not overlap each other.

Task Distribution

1. Discussed design questions and general project specifications (All)
2. Began working on requirements document (Bijan & Ebou)
3. Worked on functional/nonfunctional requirements (Wiam, Younes, James & Bijan)
4. Worked on actors and use cases (Bijan & Ebou)

5. Continued working on domain model (All)
6. Address more questions regarding the remaining parts of the deliverable #1 (All)

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Meeting 3: Wednesday 2/8/2017, 5 PM - 9:30 PM, McLennan Library (4.5h)

Attendance

Ebou Jobe
Wiam El Ouadi
Bijan Sadeghi
Younes Boubekeur
James Tang

Key Design decisions

Created the first draft of the Class Diagram, including multiplicities. For example, we decided an Instructor can teach many Courses, and a Course may be given by more than one Instructor. We created the classes JobApplication, Allocation, JobAssignment.

Task Distribution

1. Worked on domain model (All)
2. Almost finished statechart for class “Job” (Wiam, Younes & James)
3. Begin requirement-level sequence/activity diagrams (All)
4. Updated meeting log (All)

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Meeting 4: Saturday 2/11/2017, 3 PM - 2 AM, Trottier (11h)

Attendance

Ebou Jobe
Wiam El Ouadi
Bijan Sadeghi
Younes Boubekeur
James Tang

Key Design decisions

Replaced GradStudent and UndergradStudent subclasses with a boolean isGrad attribute in the Student class. Redefined the relationship between Allocation and the other classes, and updated multiplicities from * to 0..3. Added studentEnrolment attribute in the Course class. TAMAS doesn’t choose the final candidate for the position but proposes eligible ones based on their availabilities and student status. The instructor is the one that chooses the optimal candidate and enters it in TAMAS so that the EceAdmin can approve it.

Task Distribution

1. Revised and advanced domain model based on discussions
2. Completed requirements-level sequence diagrams
3. Discussed in detail regarding the sequence diagrams
4. Updated meeting log

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Meeting 5: Sunday 2/12/2017, 1 PM - 3 PM, Trottier (2h)

Attendance

Ebou Jobe
Wiam El Ouadi
Bijan Sadeghi
Younes Boubekeur
James Tang

Key Design decision

No specific design decisions were made.

Task Distribution

1. Finished domain model and added it to document
2. Finished use case diagram and descriptions
3. Finished statechart
4. Formatted document
5. Updated meeting log

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Member Contribution up to deliverable #1

Bijan: 22h
Ebou: 22h
Younes: 22h
Wiam: 22h
James: 22h

Proposed work plan for remaining Iterations

Deliverable 2, due Feb 26th, Sunday

Proposed meeting time and hours
Meeting #1: Wed, Feb, 15th. 5:00pm-9:30pm (4.5 h)
Meeting #2: Sat, Feb, 18th. 12:00pm-10:00pm (10 h)
Meeting #3: Thur, Feb 23rd 6:00pm-10:00pm (4 h)
Meeting #4: Sat, 25th. 12:00pm-10:00pm (10 h)

Requirements to be addressed:

TAMAS Functional Requirements

TFR.01	TAMAS shall determine default TA and grader hours based on a list of courses uploaded by the department that includes key course information.
TFR.02	TAMAS shall allow instructors to publish job postings for upcoming TAs and markers until a given deadline.
TFR.03	TAMAS shall allow students to apply to at most three unique jobs by submitting their applicant details (including the possibility of applying to a TA and grader job for the same course).

TAMAS Non-Functional Requirements

TNR.01	TAMAS shall be accessible on Desktop (full functionality), Web and Android (one each for TAs and instructors, in any order).
TNR.02	TAMAS shall prompt users to verify their identity in order to access the appropriate functionality.

Estimating of efforts

- Description of architecture of proposed solution including block diagrams (4h)
- Description of detailed design of proposed solution including class diagrams (9-10h)
- Source code of prototype implementation of “Publish Job Posting” use case on Java and mobile/web platform and “Apply for Job” use case on Java and web/mobile platform. (9-10h)
- Implementation-level sequence diagram for “Publish Job Posting” and “Apply for Job” use cases for each supported platform (3 h)
- Update of work plan (1 h)

Deliverable 3, due March 17th, Friday

Proposed meeting time and hours
Meeting #1: Wed, March 1st. 5pm-9:00pm (4 h)
Meeting #2: Sat, March 4th, 12:00pm-10:00pm (10 h)
Meeting #3: Thursday March 9th. 5:00pm-10:00pm (6 h)
Meeting #4: Thursday March 15th. 6:00pm-10:00pm (4 h)

Requirements to be addressed:

Functional

TFR.04	TAMAS shall determine the optimal candidate for each available job based on their availabilities and their student status.
TFR.05	TAMAS shall allow instructors to change the initial allocation of worker hours in the case that the budget is not exceeded.

Non- Functional

TNR.02	TAMAS shall prompt users to verify their identity in order to access the appropriate functionality.

Estimating of efforts

- Description of unit testing (6 h)
- Description of component testing (6h)
- Description of system testing (7 h)
- Description of performance/stress testing (4h)
- Update of work plan (1h)

Deliverable 4, due March 27, Monday

Proposed meeting time and hours
Meeting #1: Sat,March 18th. 12:00pm-10:00pm (10 h)
Meeting #2: Wed, March 22nd. 5:00pm-9:30pm (4.5 h)
Meeting #3: Sat, March 25th 12:00pm-10:00pm (10 h)

Functional

TFR.06	TAMAS shall allow the department to approve final job allocations.
TFR.07	TAMAS shall prompt selected students to accept or reject job offers.

Non- Functional

TNR.03	TAMAS shall require less than 30 minutes of training time for users to learn how to use all features of the system.

Estimating of efforts

- Adding TNR.03, TRF.06 and TF.07 to TAMAS (13h)
- Description of release pipeline (9-10h)
- Update of work plan (1h)

Deliverable 5, due April 3rd, Monday

Proposed meeting time and hours
Meeting #1: Wed,March 29th. 5:00pm-10:00pm (5 h)
Meeting #2: Thursday, March 30th. 5:00pm-9:30pm (4.5 h)
Meeting #3: Sat, April 1st, 12:00pm-10:00pm (10 h)
Meeting #4: Sun, April 2nd, 10:00am-4:00pm (6h)

Functional

TFR.08	TAMAS shall allow the instructor to submit an evaluation for each TA and grader at the end of the course.

Non- Functional

TNR.04	TAMAS shall perform each of its operations in less than one minute.
TNR.05	TAMAS shall take less than 500 MB of disk space.

Estimating of efforts

- Adding requirements TFR.08, TNR.04, TNR.05 to TAMAS (5h)
- Getting TAMAS ready for presentation (6h)
- Improve UI (4h)
- Preparing for presentation (8h)
- Update of work plan (1h)
- Presentation (0.5h)

Deliverable 6, due April 11th, Monday

Proposed meeting time and hours
Meeting #1: Wed, April 5th. 5:00pm-10:00pm (5 h)
Meeting #2: Thursday,April 6th. 5:00pm-9:30pm (4.5 h)
Meeting #3: Sat, April 8th, 12:00pm-10:00pm (10 h)
Meeting #4: Sun, April 9th, 11:00am-4:00pm (5h)

Non- Functional

TNR.06	TAMAS shall have no more than two malfunctions per session of use.
TNR.07	TAMAS shall force-close at a rate less than one out of twenty sessions.

Estimating of efforts

- Improve UI (4h)
- Ensure requirement TNR.06, TNR.07 are met. (4h)
- Optimize TAMAS for performance (4h)
- Gather source code of full implementation of TAMAS (2h)
- Gather full commit history of the Github repository (1h)