

Homeworks and Project 😊

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Administrative Issues

- 02 member group in all activities
 - Homeworks
 - Project
 - (we **might** have another activity ☺ – tentative)

Homeworks

- 04 Homeworks
- There might be (few) Bonus point questions in each Homework
- In-time submission and approval of all Homeworks, 5 Bonus points
- You can get: (around) 13-15 Bonus Points

Topics to Cover in Homeworks

- Homework 1
 - Agent Programming using Jade
- Homework 2
 - Agent Programming using Jade
 - Agent Negotiation & Communication

Project

- 03 week for Project
- 20 min demo for project.
- (few) Bonus point questions in Project
- In-time submission and approval of Project, 5 Bonus points
- You can get: (maximum) 7-10 Bonus Points

Total Bonus Points

- In Total you can get:

20-25 Bonus Points from Project + Homeworks

Schedule

02-11-2007 08-11-2007	HW1 Session Homework 1 Due	Monday 12th, Demo during 12 – 2 pm, 5 – 8 pm	} 01 Weeks for each HW
09-11-2007 18-11-2007	HW2 Session HW2 Due		
16-11-2007 25-11-2007	HW3 Session HW3 Due		
23-11-2007 02-12-2007	HW4 Session HW4 Due	Project Introduction	} 03 Weeks for Project
13-12-2007	Project Due	Very Hard Deadline	
14-12-2007	08 am – 01 pm 02 pm – 06 pm	Project Demo	
19-12-2007	Final Examination		

Due to Christmas 14-12-2007 is the very hard-deadline, no extension at All.

Homework 1

- Submission Deadline (08-11-2007)
- A small demo (10 min) of running agents. Demo applies for Bonus question as well.

Time Slots for Demo:

Monday 12th November:

- 12 – 2 pm & 5 pm – 8 pm
- Slots sheet will be on 8th Floor elevator C.
- No Demo for HW1 after Monday, so if you have issue with Monday then we can have it earlier but not latter.

Question 1

Implementation of Agent Behaviors

Consider/Propose scenario(s) and implement all of available agent behaviors in Jade Framework.

Simple Behaviour

CyclicBehaviour, MsgReceiver, OneShotBehaviour, SimpleAchieveREInitiator, SimpleAchieveREResponder, TickerBehaviour, WakerBehaviour

Composite Behaviours

ParallelBehaviour, FSMBehaviour, SequentialBehaviour

Question 2

Using DF (Directory Facilitator) agent

1. Implement an agent that provides some service and registers it at DF.
1. Implement an agent that can discover all registered services at DF, asks user for its choice and then displays the parameters expected to use that service.
1. Implement an agent that subscribes to DF and gets notified each time the desired service is published at DF.

Question 3

Creating your own DF agent

Specify a domain and Implement your own DF agent (inheritance from default DF). That sub-DF should register services from only a particular domain. Out-of-domain requests for registering/discovery etc should be ignored.

(You can link this with Question 2)

Bonus Question 02 Points

JADE and Other Agent Platforms

Perform a comparison of **01** other Agent Platforms with JADE.

Your comparison should comprise of

1. Architecture of Platform
2. Services provided by Platform
3. Comparison of implementation of a simple scenario same as Question 2 (i.e. Service Implementation, Service Registration, and Service Discovery)
4. List some notable projects which used that platform.
5. your personnel opinion/judgment about the platform as compared to JADE.

You can take part 3 as your starting point, and explain the architecture and services the platform provides from a practical point of view.

Deliverables

- Documented Source Code (with instructions for execution) and Report for Bonus question emailed by deadline to ahaseeb@kth.se with Subject “DAIIA07 HW1”
- NOTE: You don't need to write report for First 03 Questions, Documented Source Code would suffice.
- A small demo (10 min) of running agents. Demo applies for Bonus question as well.
- Time Slots for Demo:
- Monday 12th November: 12 – 2 pm, & 5 pm – 8 pm (30 slots 10 min each). Slots sheet will be on 8th Floor elevator C.
- But do email me the documented source code and Report by Deadline (8th November).

Some Resources

- JADE Documentation
 - <http://sharon.cselt.it/projects/jade/doc/>
- JADE Primer
 - <http://www.iro.umontreal.ca/~vaucher/Agents/Jade/JadePrimer.html>
- Tutorial
 - <http://sharon.cselt.it/projects/jade/doc/tutorials/JADEProgramming-Tutorial-for-beginners.pdf>