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Universal Computational Cluster

Start up documentation



1 Methodology and technology

We choose Agile development to provide a regular and iterative work flow.

For technology we have chosen .NET C#, a powerful tool which we would like to explore even further.

2 Schedule of tasks

- **Stage 1: Communication**

Deadline 31.03

Progress meetings (within the team) 16.03, 23.03

- **Stage 1.1: Internal Deadline: 16.03**

- 1. Communication Server. (Lukasz)**

- Registering: computational node, task manager.
- Updating states of nodes (keeping alive / removal).

Time Required: 8h

Actual Time Spent:

- 2. Computational node, Task manager, Client. (Karol)**

- Scheme of classes.
- Client input mechanism.

Time Required: 8h

Actual Time Spent:

- 3. Communication protocol. (Jakub)**

- Appropriate API.
- Classes of messages and problems .

Time Required: 8h

Actual Time Spent:

- 4. Network. (Bartek)**

- TCP/IP connection.
- Listening to given port.
- Establishing connection.

Time Required: 8h

Actual Time Spent:

- 5. Testing. (All)**

Time Required: 2h

Actual Time Spent:

– **Stage 1.2: Internal Deadline: 23.03**

1. Communication Server. (Lukasz)

- Queueing of Messages.
- Receiving problems from CC.
- Sending problems to TM, CN.
- Receiving solutions from TM, CN .

Time Required: 12h

Actual Time Spent:

2. Computational node, Task manager, Client. (Karol)

- Registering to server.
- Sending problems/solutions to server.

Time Required: 8h

Actual Time Spent:

3. Communication protocol. (Jakub)

- Handling messages. Creating Appropriate classes

Time Required: 8h

Actual Time Spent:

4. Network. (Bartek)

- Failures, Closure

Time Required: 8h

Actual Time Spent:

5. Testing. (All)

Time Required: 2h

Actual Time Spent:

– **Stage 1.3: Internal Deadline: 30.03**

1. Communication Server. (Lukasz)

- Any additional tasks

Time Required:

Actual Time Spent:

2. Computational node, Task manager, Client. (Karol)

- Any additional tasks

Time Required:

Actual Time Spent:

3. Communication protocol. (Jakub)

- Any additional tasks

Time Required:

Actual Time Spent:

4. Network. (Bartek)

- Any additional tasks

Time Required:

Actual Time Spent:

5. Testing. (All)

Time Required: 2h

Actual Time Spent:

Update 31.03 Communication stage completed.

- All problems have been fixed

- **Stage 2: Algorithm**

Deadline 28.04

Progress meetings (within the team) 12.04, 25.03

Update 02.06 Algorithm stage completed, although not in time.

- A team member has been kicked out due to inactivity.
- Missed a deadline since the team got smaller.

- **Stage 3: Testing All functionalities**

Deadline 02.06

Progress meetings (within the team)

Update 02.06 Final stage completed.

- Backup servers completed.