CEngBall

Project Contorium

February 22, 2014

Team Members:

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1. Short Project Description

The aim of this project is to develop a programming game that allows users to develop their artificial intelligence agents and compete with other users. The game is a basic well-designed football simulation. Major audience for this project is anyone who is interested in A.I. or software development. We are going to provide an easy to use API for user interaction. Also, the process will be visualized in 2D manner.

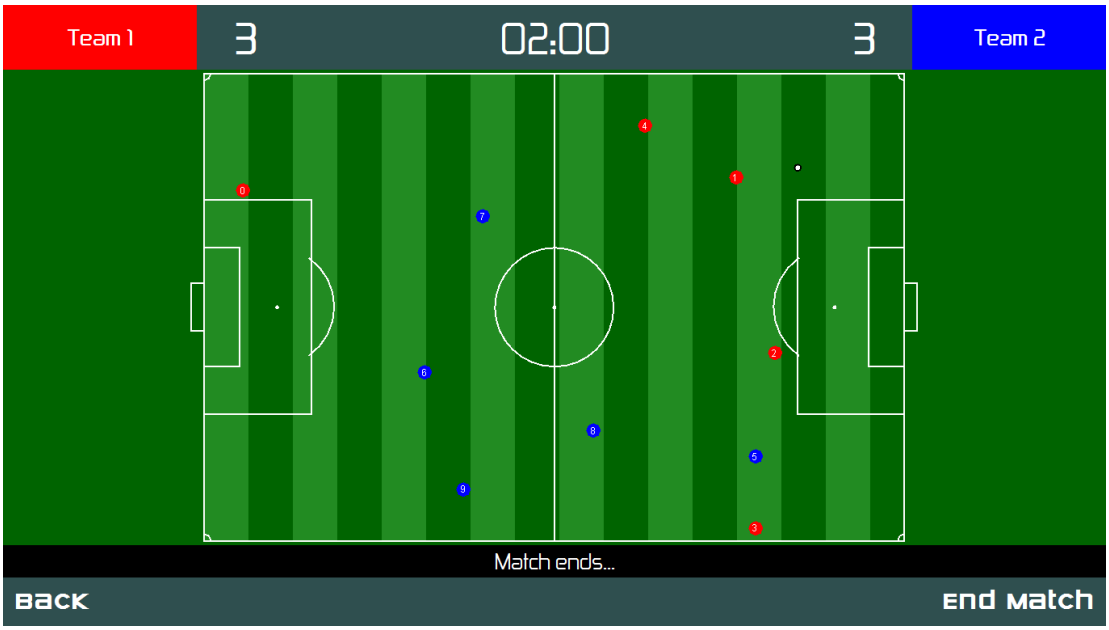

Figure 1: Screen view from visualizer

2. Project Status

The list of completed tasks are following.

- General Class and Entity Design: The entities that will be used in the game such as “Team”, “Player”, and “Pitch” are decided. General game flow is designed.
- Modulation: The project is divided into three modules. These modules are the simulator, the visualizer and the A.I. agents.
- Visualizer: The basic 2D display of the simulation and the entities is completed.
- Data Communication: The communication between the simulator and the visualizer modules is implemented. This data that contains relevant information regarding the game entities is stored as a save file.
- GUI: A basic graphical user interface is implemented.

3. Iteration Planning

Task Name	Duration	Start	Finish	Assigned To
Designing AI API	11 weeks	02.22.14	05.10.14	Project Contorium
Designing hierarchy between classes	1 week	02.22.14	03.01.14	Alper Demir
Deciding required entities	1 week	02.26.14	03.08.14	Doğa Uzuncukoğlu
Implementing helper functions	1 week	03.01.14	05.01.14	Emre Can Küçükoğlu
Implementing API classes	7 weeks	03.22.14	05.10.14	Necati Çevik
Testing	2 weeks	04.26.14	05.10.14	Alper Demir
Implementation of simulation	7 weeks	03.08.14	04.26.14	Project Contorium
Designing concurrency aspect of simulator	1 week	03.08.14	03.15.14	Doğa Uzuncukoğlu
Implementation of turn-based manner	1 week	03.11.14	03.18.14	Emre Can Küçükoğlu
Imp. of the business logic	5 weeks	03.22.14	04.26.14	Necati Çevik
Testing	2 weeks	04.12.14	04.26.14	Alper Demir
Designing AI agents	12 weeks	02.23.14	05.17.14	Project Contorium
Research about football logic	1.5 weeks	02.23.14	03.04.14	Doğa Uzuncukoğlu
Deciding tactical football heuristics	1 week	03.02.14	03.09.14	Emre Can Küçükoğlu
Planning state machines	1 week	03.05.14	03.12.14	Necati Çevik
Implementation of AI agents	10 weeks	03.09.14	05.17.14	Alper Demir
Testing	2 weeks	05.04.14	05.17.14	Doğa Uzuncukoğlu
Improvements to the GUI and visualizer	1.5 weeks	05.11.14	05.21.14	Project Contorium
Logo design and GUI improvements	1 week	05.11.14	05.18.14	Emre Can Küçükoğlu
Design of menu screen - import menu	1 week	05.14.14	05.21.14	Necati Çevik
Overall improvement in visualization of simulation	1 week	05.14.14	05.21.14	Alper Demir
Testing	0.5 week	05.18.14	05.21.14	Doğa Uzuncukoğlu
Imp. to the website design and user manual	1.5 weeks	05.21.14	05.31.14	Project Contorium
Website design improvements	1 week	05.21.14	05.28.14	Emre Can Küçükoğlu
Design of the wiki-pages	1 week	05.22.14	05.29.14	Necati Çevik
Design of the user manual	1 week	05.25.14	05.31.14	Alper Demir

4. Gantt Chart

	Task Name	Duration	Start	Finish	Assigned To
1	Designing AI API	11 weeks	02/22/14	05/10/14	Project Contorium
2	Designing hierarchy between classes	1 week	02/22/14	03/01/14	Alper Demir
3	Deciding required entities	1 week	02/26/14	03/08/14	Doga Uzuncukoglu
4	Implementing helper functions	1 week	03/01/14	05/01/14	Emre Can Kucukoglu
5	Implementing API classes	7 weeks	03/22/14	05/10/14	Necati Cevik
6	Testing	2 weeks	04/26/14	05/10/14	Alper Demir
7					
8	Implementation of simulation	7 weeks	03/08/14	04/26/14	Project Contorium
9	Designing concurrency ascept of simulator	1 week	03/08/14	03/15/14	Doga Uzuncukoglu
10	Implementation of turn-based manner	1 week	03/11/14	03/18/14	Emre Can Kucukoglu
11	Imp. of the business logic	5 weeks	03/22/14	04/26/14	Necati Cevik
12	Testing	2 weeks	04/12/14	04/26/14	Alper Demir
13					
14	Designing AI agents	12 weeks	02/23/14	05/17/14	Project Contorium
15	Research about football logic	1.5 weeks	02/23/14	03/04/14	Doga Uzuncukoglu
16	Deciding tactical football heuristics	1 week	03/02/14	03/09/14	Emre Can Kucukoglu
17	Planning state machines	1 week	03/05/14	03/12/14	Necati Cevik
18	Implementation of AI agents	10 weeks	03/09/14	05/17/14	Alper Demir
19	Testing	2 weeks	05/04/14	05/17/14	Doga Uzuncukoglu
20					
21	Improvements to the GUI and visualizer	1.5 weeks	05/11/14	05/21/14	Project Contorium
22	Logo design and GUI improvements	1 week	05/11/14	05/18/14	Emre Can Kucukoglu
23	Design of menu screen - import menu	1 week	05/14/14	05/21/14	Necati Cevik
24	Overall improvement in visualization of simulation	1 week	05/14/14	05/21/14	Alper Demir
25	Testing	0.5 week	05/18/14	05/21/14	Doga Uzuncukoglu
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27	Imp. to the website design and user manual	1.5 weeks	05/21/14	05/31/14	Project Contorium
28	Website design improvements	1 week	05/21/14	05/28/14	Emre Can Kucukoglu
29	Design of the wiki-pages	1 week	05/22/14	05/29/14	Necati Cevik
30	Design of the user manual	1 week	05/25/14	05/31/14	Alper Demir

Figure 2: Gantt chart February

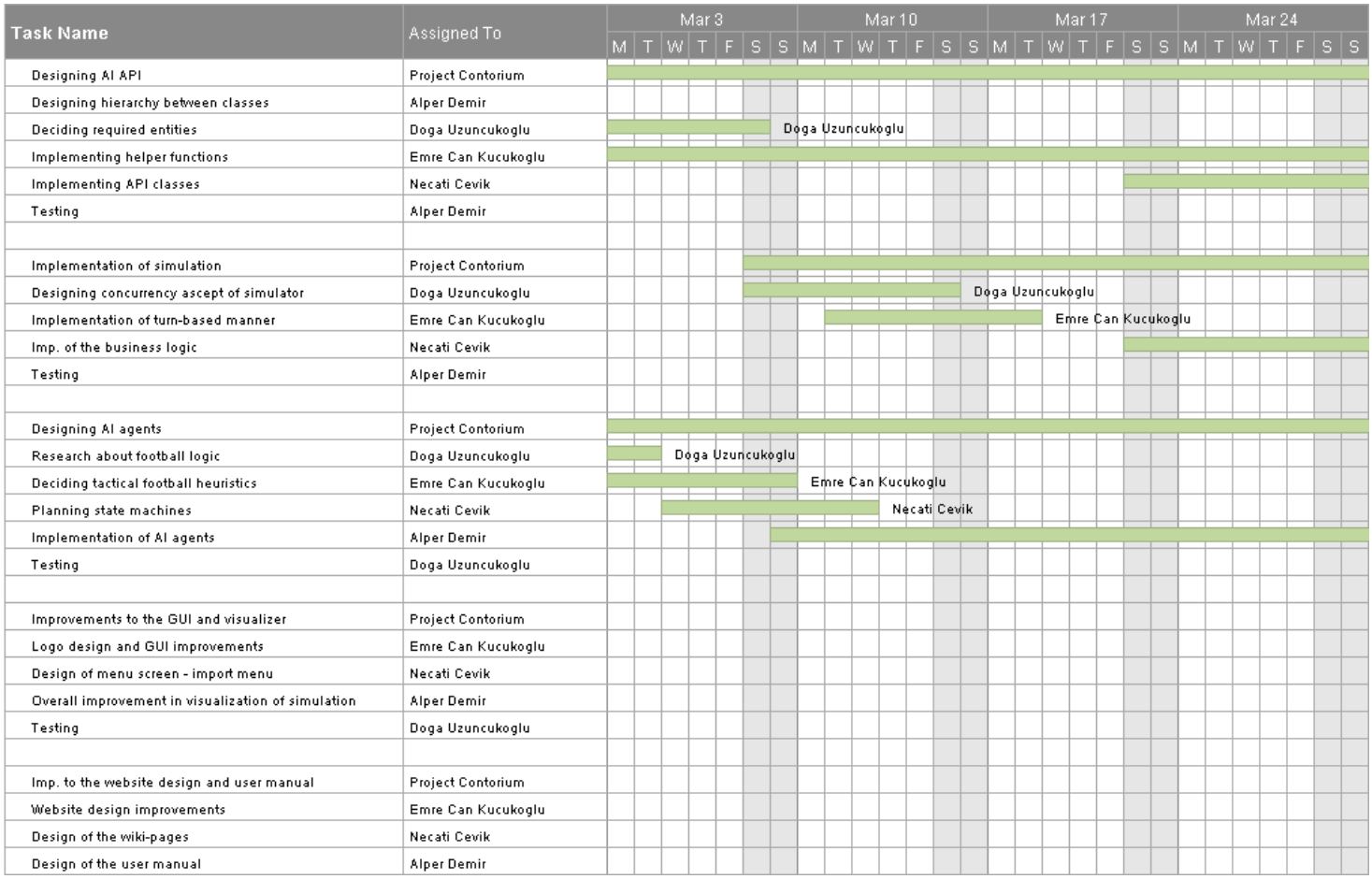

Figure 3: Gantt chart March

Figure 4: Gantt chart April

	Task Name	Assigned To
1	Designing AI API	Project Contorium
2	Designing hierarchy between classes	Alper Demir
3	Deciding required entities	Doga Uzuncukoglu
4	Implementing helper functions	Emre Can Kucukoglu
5	Implementing API classes	Necati Cevik
6	Testing	Alper Demir
7		
8	Implementation of simulation	Project Contorium
9	Designing concurrency ascept of simulator	Doga Uzuncukoglu
10	Implementation of turn-based manner	Emre Can Kucukoglu
11	Imp. of the business logic	Necati Cevik
12	Testing	Alper Demir
13		
14	Designing AI agents	Project Contorium
15	Research about football logic	Doga Uzuncukoglu
16	Deciding tactical football heuristics	Emre Can Kucukoglu
17	Planning state machines	Necati Cevik
18	Implementation of AI agents	Alper Demir
19	Testing	Doga Uzuncukoglu
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21	Improvements to the GUI and visualizer	Project Contorium
22	Logo design and GUI improvements	Emre Can Kucukoglu
23	Design of menu screen - import menu	Necati Cevik
24	Overall improvement in visualization of simulation	Alper Demir
25	Testing	Doga Uzuncukoglu
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27	Imp. to the website design and user manual	Project Contorium
28	Website design improvements	Emre Can Kucukoglu
29	Design of the wiki-pages	Necati Cevik
30	Design of the user manual	Alper Demir

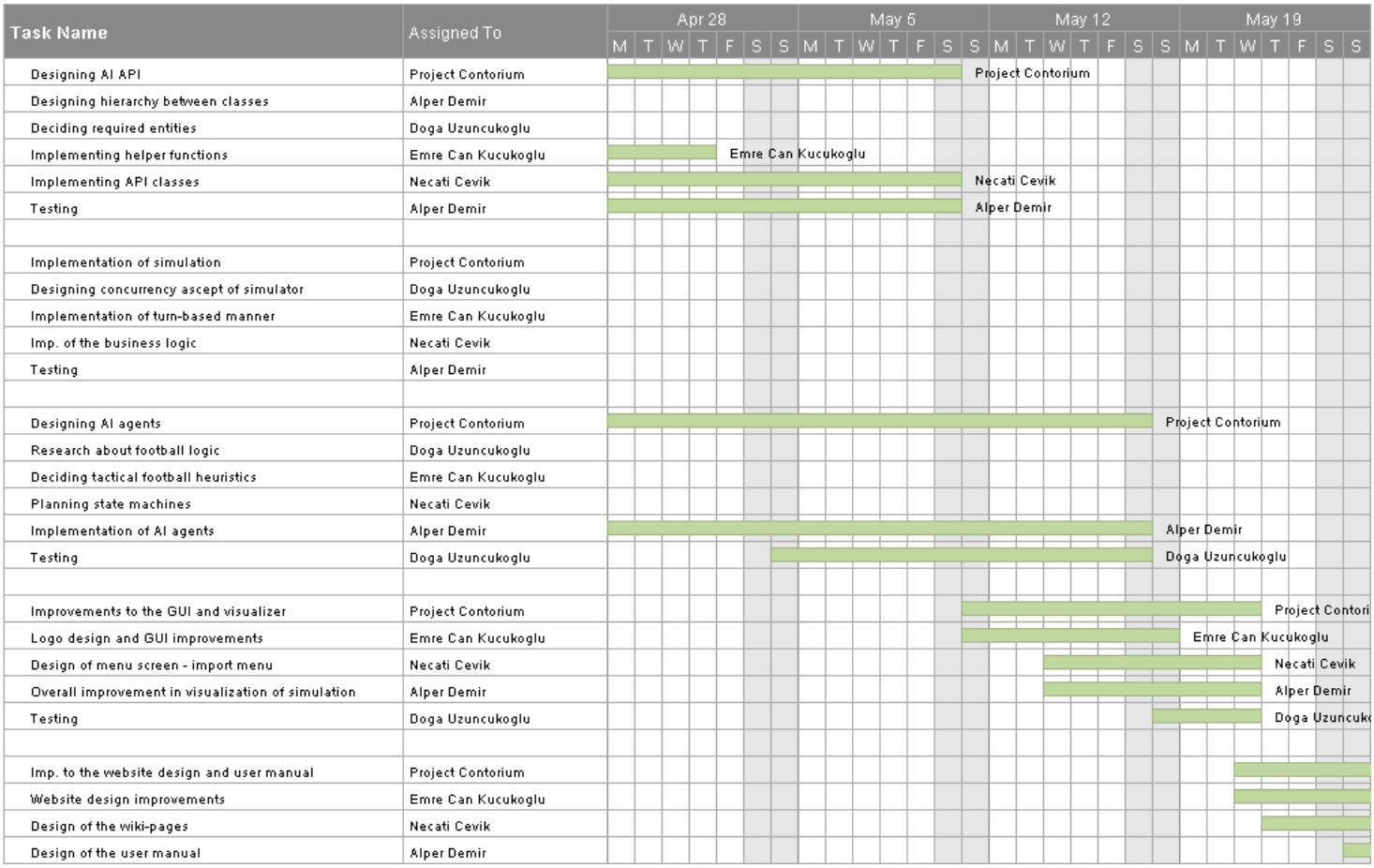

Figure 5: Gantt chart May

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1	Designing AI API	11 weeks	02/22/14	05/10/14	Project Contorium
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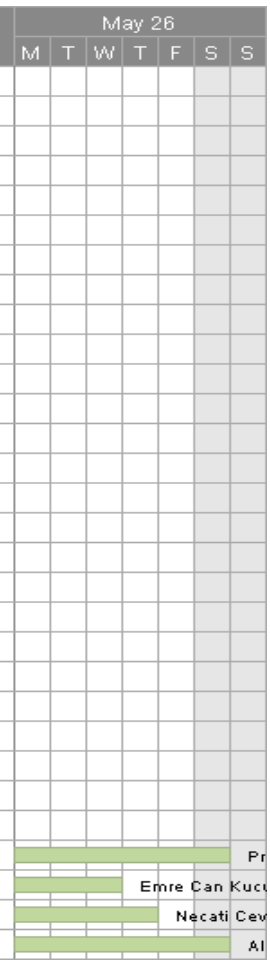

Figure 6: Gantt chart May