



Ceng 491 Project Proposal

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Frog On Fire



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1. Group Description

1.1 Group Members

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1.2 Sponspor

Usta Yazılım, Technopolis, METU

2. Project Description

2.1 Project Title

Mobile Games

2.2 Project Description

Since early days, people have always been playing games. Even people were hungry or thirsty; they have been able to play games to forget their daily lives and to enjoy themselves. Herodotus wrote that; in the times of drought and starvation, Lydian survived by playing dice games one day and not consuming any food. In the following day they had ate and drank without playing dice. Thirteen years they have survived thanks to dice that made them forget their hunger and thirst. Since then games have evolved into much more important parts of our lives, so did their contents. For the last decade when we said “gaming”, it meant playing games on computers or in other digital media. But only for the last few years it has come to mean not only the games themselves but also the social interactions involved with them. The latest trends like “Facebook” allowed communities to play and interact with others socially at the same time. The project namely “Mobile Games” aims to provide players with yet another game most of us used to play with people but no longer can because of our daily lives, and make it possible to play it via internet with our friends or new people. Also even when no viable opponent is found, AI agent will fill in for your opponent and plays with you. Although the purpose of this project is as described above, it will

also provide us with the experience to develop an engineer's perspective and practice a software development process with said perspective.

2.3 Clear Definition of Problem

"Blöflü Pişti" is a game of cards; most of people have played at a point in their lives. But since the new trends of social media have been so important in our lives, attempts to make this game available for online communities have been unsuccessful. Therefore we aim to make it so viable server-client architecture and communication protocols are in place. We also aim to create an AI agent that will/can play as a client for any missing player in game or for single playing purposes. At the end of the project we intend to let our players remember their experience with the game and most importantly have fun, be it single player or multi-player.

2.4 Our Approach

By developing and establishing server and client software and an AI agent for different purposes, we are going to create an environment for players to come and play "Blöflü Pişti" with other players or against our AI agent. The agent will use statistics stored in the server-database to adjust their skill level. Client side will have a clean and engaging GUI (Graphical User Interface) and server connections will have a pre-defined communication protocol.

2.5 Detailed Characteristics

Project will be developed on "Objective C" and "C++" for iOS of iPhone and it will consist of several parts. First part will be "Client", where users will access the game, download it, register it and of course play it. Client software will implement a GUI that is both pleasant and engaging for the player. It will use defined protocols for interop of 2 different server-client structures. As mentioned second part will be the server. Server will accept connections from client software, allowing them to join, create or leave a table to play with others or by themselves. It will keep statistics of

every player on the database (win/lose, fake/real “pişti”, etc.). Server will also monitor all interaction between players (i.e. No P2P communication). Last part is AI agent. AI agent will be implemented to play when a player has lost connection or left mid-game, with the option to play full games against them as single player. AI will use statistics stored on the server and will adopt/evolve according to player. It will calculate odds and develop a strategy according to situation. It should also evaluate the opponent and try to model them.

2.6 Gantt Chart

Number	Task	Progress
1	Proposal	
2	Requirements Analysis Report	
3	Initial Design Report	
4	Detailed Design Report	
5	Final Presentation	
6	Prototype Demo	

3. Market Research

Popularity of mobile devices has been increasing day by day in the last decade. Also, developers give their most of attention to the applications in those mobile devices that give customers a flexible and enjoyable usage. The most important part of these applications consists of mobile games that can be played either multiplayer or single. Similar to our project, in market, almost every mobile game can be played in two ways. According to our researches, there are different projects on the market to play "Blöflü Pişti" in the platform that we developed. However, none would satisfy our clients. Since our sponsor company's wishes are in this direction, our server client architecture and the AI part that we will develop, will make us different on this development area. Almost all the card games in iPhone

platform have some artificial intelligence structure. In our design, we have a different point of view on the subject and we'll produce our solution to meet sponsor company's wishes as best as possible.

4. References

These references is about market research.

[1] <http://toucharcade.com/category/games/card/>

[2] <http://itunes.apple.com/us/app/best-card-games-hd/id356111093?mt=8>

[3] <http://iphone.appstorm.net/roundups/games/iphone-game-friday-card-games/>