

# Proposal for Final Project – Bombing Adventure

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## Background

Bomberman is thought to be one of the most famous classic games. Basically, the rules of the game are so simple that new players could get started easily, while the playability of it still remains very high. In the Bomberman game, the user can control a bomberman to move in four directions on the two-dimensional maps, and set time bombs to destroy obstacles or figures. In response, the computer opponents would manage to kill the player by throwing bombs, too. The general goal for this game is to kill all the computer players by placing bombs within a specific period of time, and then move to the next level. By picking items up, players can throw bombs across a wall, dismantle bombs, or improve the blast range, etc.

## Problem

Though Bomberman has a longer history than many other classical video games, in the past versions, Bomberman did not have variable mazes. Since current video games are more fascinating, the game play of Bomberman seems awfully boring and meaningless for many young people. Obviously, similar mazes and changeless game difficulty should be responsible for this deficiency. At the same time, the network-based multiplayer mode is not supported in the past versions. Lots of people enjoy the accomplishment of success when they are involved in video games, or the delight during the cooperation with their friends on different computers. However, the single-player mode fails to provide more than the achievement of beat one computer. After several attempts, people will gradually lose their interest in this unchanging game.

## Solution

In this project, the development team intends to redesign the game Bomberman and upgrades its gameplay, finally developing a new game called Bombing Adventure. Level design and other features will join in the new game Bombing Adventure in order to enrich the enjoyment of the player. In addition, game players can choose single-player mode or the network-based multiplayer mode before a game starts. The single-player mode has little difference in the basic goal from the previous one, but the concrete map

pattern or the tool types will be changed. In the network-based multiplayer mode, the players on different computers can cooperate with each other via network to fight with the computer players.

## Benefits

This new Bombing Adventure game is adapted from the original Bomberman game, and the new one has an advantage in its game mode and attraction. Bombing Adventure is a well-designed game with both network-based and offline modes, which satisfies the different needs of various people. Several players can enjoy the game together in the multiplaying mode through different computers. Also, the renewed tool types, background pictures and design style enable this game to be more attractive to the new participants, which is helpful for the promotion of this game.

## Implementation

The development team mainly uses C++ and cocos2d-x in this project. Other libraries and references will be used when necessary. The picture and sound resources will be extracted from the Internet with valid permission or designed by self. The other references will come from some related books and online information. The implementation procedure basically includes design, development and test. Also, the fundamental implementation principle is that the development group follows the MVC (Model-View-Controller) pattern as far as possible, that is, construct the logical model, build the view and user interface, and then fulfill the implementation of the controller.

## Milestones

Week	Content	Remark
3/13 - 3/17	Writing Proposal	Project Proposal due
3/18 - 3/24	Preparing Presentation	Proposal Presentation
3/25 - 3/31	Logical Implementation I	Assignment 2
4/1 - 4/7	Logical Implementation II, User Interface (View, Photos, Sound...) I	
4/8 - 4/14	User Interface (View, Photos, Sound...) II	Assignment 2 due

4/15 - 4/21	Logical Integration and Perfection I	
4/22 - 4/28	Logical Integration and Perfection II, Network I	Assignment 3
4/29 - 5/5	Network II, Test	
5/6 - 5/12	Writing Report I	Assignment 3 due
5/13 - 5/18	Writing Report II	Project and report due

## Division of Labor

The division refers to MVC (Model-View-Controller) pattern, and it is subject to adjustment based on the practical progress, but the workload will be balanced if necessary to make sure all people make the same contribution.

### 3/25 - 4/14

Name	Student ID	Work	Weight
Yang LIU	116010151	User Interface (View, Photos, Sound...)	25%
Jingxuan QIU	116010181	Logical Implementation	25%
Xuansu ZHANG	116010301	User Interface (View, Photos, Sound...)	25%
Zhiyi ZHANG	116010308	Logical Implementation	25%

### 4/15 - 5/5

Name	Student ID	Work	Weight
Yang LIU	116010151	Logical Integration and Perfection, Test	25%
Jingxuan QIU	116010181	Logical Integration and Perfection, Test	25%
Xuansu ZHANG	116010301	Network	25%
Zhiyi ZHANG	116010308	Network	25%

## Conclusion

The original Bomberman game is popular but lack of variation. The proposed game aims to add some new elements in order to make the previous game more complete. This game will attract more people with its latest advantages.