

# Team FooBar()

## Work Breakdown Structure

Version 2.0

### Version 1.0 Unfinished Business

- Pathfinders
  - Return next coordinates function (A\*)
  - Return next coordinates function (BFS, DFS)
- Log file
  - Finish implementation of log file

### Bugs/Crashes

- Fix bugs/crashes from Version 1.0

### Basic Functions

- Synonymous go functions
  - Up, down, north, south, east, west
- Enemy placement

### Replay System

- Create replay file
- User interface
  - Open replay
- Commands
  - Use pause
  - Use resume
  - Go back number
  - Go forward number
  - Use stop
  - Go faster
  - Go slower
- List replay files
- File extension for replay files
- File Encryption/Decryption
  - Encryption decision logic
  - Caesar Cipher algorithm
  - AES algorithm
  - Hard-coded encryption

### Database

- Create username and password
  - Allow user to create username and password
- Store replay
  - Store to database with a network connection
  - Store locally with no network connection
- Exception handling

### User Interface

- Login screen
  - User must log in with a valid username and password
  - New user can create username and password
- Main menu/Title screen
  - User can start new game or view replays

### Testing

- Develop test cases
- Test software

### Lagniappe

- Enemy interaction
- Leaderboard
- Custom art assets
  - Open door graphic
  - Closed door graphic
  - Open chest graphic
  - Closed chest graphic
  - Key graphic
  - Simple enemy graphic
  - Smart enemy graphic
- Sound system
  - Add sounds to enhance the user experience
- Field of view system
- Superman mode
  - Allows the user to be immortal
- Repeated action using backspace on input box
  - Hold down backspace key to repeat action

### Documentation

- Risk management
- PyDocs
- UML diagrams
- Update GanttProject
- Update Team Participation
- Update WBS
- Update Report
- Submission report
  - Compile all assets
  - Get feedback from all members
  - Finalize
  - Submit project

# Team FooBar()

## Work Breakdown Structure

Version 1.0

### Setup/Plan

- Select Tools
  - Language/IDE/Library(ies)
- Setup maze/GUI
  - Maze size

### Basic Functions

- Rendering of Objects
  - Draw avatar
  - Draw door
  - Draw chest
  - Draw key
  - Draw marker
  - Draw random enemy
  - Draw smart enemy
  - Draw chest combination
- Positioning of Objects
  - Randomize coordinates
  - Position chest
  - Position key
  - Position avatar
  - Position door
  - Position random enemy
  - Position smart enemy
  - Position chest combination
- Player Commands
  - Go command
    - Variable-length Go command
  - Use command
  - Grab command
  - Open command
- Error Handling
  - Define valid user input
  - Output for invalid input

### Advanced Features

- Generate a random maze
  - Randomize maze
- Pathfinding Algorithms
  - Quick Pathfinder
  - Quick Pathfinder
  - Optimal Pathfinder
- Combination System
  - Design Combo Tiles
  - Implement Combo tile system with pathfinders
  - Use Combo command

### Enemies

- Random Enemy
  - Move command
- Smart Enemy
  - Movement Reliability (R&D, N-Version)
    - Move command
    - Reset command

### Testing

- Develop Test Cases
- Test software

### Log File

- Create new log file
- Write to log file

### Documentation

- Submission Report
  - Compile all assets
  - Get feedback from all members
  - Finalize
  - Submit project