Programming Test – Bomberman (Unreal)

Steps

1. Create a public Git repository on Bitbucket, GitHub, or any other Server
2. Push a first commit including only the README.md and .gitignore file
3. Follow the tasks and commit in meaningful steps, so we can follow your changes
4. At the end, take some time to explain your next steps if you would continue working on the project. Add the time you spent on the test to the README.md file and send us the link to your repository.

Please highlight any content that is not created by yourself (separate folder, obviously commented, separated code section) and further specify the source in the README.md file.

Task

Please send us your result within one week. You should not spend more than 15 hours on the test.

Your goal is to create a quick and dirty "programmer-art" version of the old Dyna Blaster/Bomberman game in 3D. Please use a mix of C++ and Blueprints.

Thank you for taking your time and participating in the test!

Features

- Static top-down view on the level **(Bonus: camera that pans in/out depending on distance between players in the level)**
- One pre-defined map **(Bonus: procedural generated maps)**
- "Couch Co-Op": Two players play on one machine using different keys to control two characters
    - Make the characters distinguishable somehow (color, nameplate, …)
    - Optimally with both players using the keyboard, no gamepad
- Implementation of different pickups
    - Longer bomb blasts
    - More bombs
    - Faster run speed
    - Remote-controlled bombs (timed power-up, around 10 seconds)
- Bomb placing by the player
    - Player is starting with only one bomb that can be active at a time
    - Placing a bomb subtracts one from the count, when the bomb explodes the count goes up again
    - Amount is upgradable with pickups
    - Once the remote detonator has been picked up only one bomb can be active until the power-up runs out
- Player death when standing in bomb blast
- Bomb blasts
    - Should not be spherical but linear in the four main directions

- o Can penetrate players/pickups when going off (killing/destroying them)
  - o Are stopped by walls
  - o Trigger other bombs
- Differentiation between destructible and indestructible walls, destructible walls can spawn random pickups (~30% chance to spawn something) upon destruction
- Win conditions:
  - o Show win screen when only one player is alive
  - o Show a map timer, that counts down and ends the round
  - o Show draw when the last players die in the same bomb blast (or chained bombs) or multiple players are alive when the timer runs out
  - o After round end, freeze game in its current state
- Reset option on end screen
  - o Starts another round
  - o Previous score should be saved
- **Bonus: AI enemies that behave like a player**

If you need any reference, you can find some gameplay here:
https://www.youtube.com/watch?v=DMNxOmNzfb0