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**BALLZ BRICK BREAKER GAME**

We made Ballz Brick Breaker game. It is a game where you try to break all the blocks on the screen with the ball that given. Every time ball hits a block, counter on the blocks decrease. When it reaches to 0, the block breaks. Since it was very hard to do leveling system we just made a score-based game. To create new blocks you have to break all the blocks on the screen. If you reach 30 score, you basically win the game.

We used Allegro5 library and primitives.h, font.h and ttf.h addons which included in Allegro5 library. Except these addons we used stdio.h and time.h libraries.

We used a struct to adjust the coordinates of the blocks and the hit counter. And we adjusted the direction of the ball recording to where it comes from. We tried to colorise the blocks related to the hit counter on each block. Also we tried to upgrade the direction mechanics but it was too hard to fix the bugs, so we just kept it simple. There are still some bugs that we don’t know how to fix. We tried many things to solve it but it just not worked very well.

**Why Did We Use?**

* stdio.h : To use basic structures(printf,scanf, etc.)
* time.h : To give random spawnpoints to the blocks.
* allegro.h : To use Allegro’s main functions such as allegro display, allegro event system, etc.
* primitives.h : To draw shapes like the ball, the blocks and the direction line.
* font.h : To create text lines on screen.
* ttf.h : To use the text type that we want.
* abs() Function : To calculate the distance between the ball and the block.

**The Proccess of The Game**

First Day : We made the basic things for the game like the ball and the block.

Second Day : We made the basic direction mechanics for the ball. There was just 4 direction at first and there were no borderline for the ball so it just went out from the screen.

Third Day : We upgraded the direction mechanic so now we have 8 direction. We added hit counter to the block. We fixed the bug that when the ball came to the starting point, it was replaying the event again. We added a feature which if the ball hits the corner, hit counter on the block decreased 2 times. We added a keybind to close the game.

Fourth Day : We added new directions so its 16 now. Also there are more directions at the throwing point. At first there was 3 directions for the throwing point, now its 7.

Fifth Day : We added a borderline for right,left and top side of the screen. So the ball wont went out of the screen anymore.

Sixth Day : We increased the number of blocks to 10 and we designed the spawnpoints for each block. We also set up new blocks when 10 blocks were broken.

Seventh Day : We added score system and the instructions.

**Who Did What?**

There is no spesific classification about this topic because we made it together all the time. One of us shared a screen and we worked on the code together. It changed everyday. One day Doğukan shared the screen, other day Burak shared the screen, another day Helin shared the screen. We sent the final code to each other everyday to think about the improvements until the next day. But there is one exception. Burak and Doğukan wrote the report.