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Game Design & Development

WS17/18

Prototype

TEAM_CK

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Introduction

– Jump n Run game

– procedurally generated map

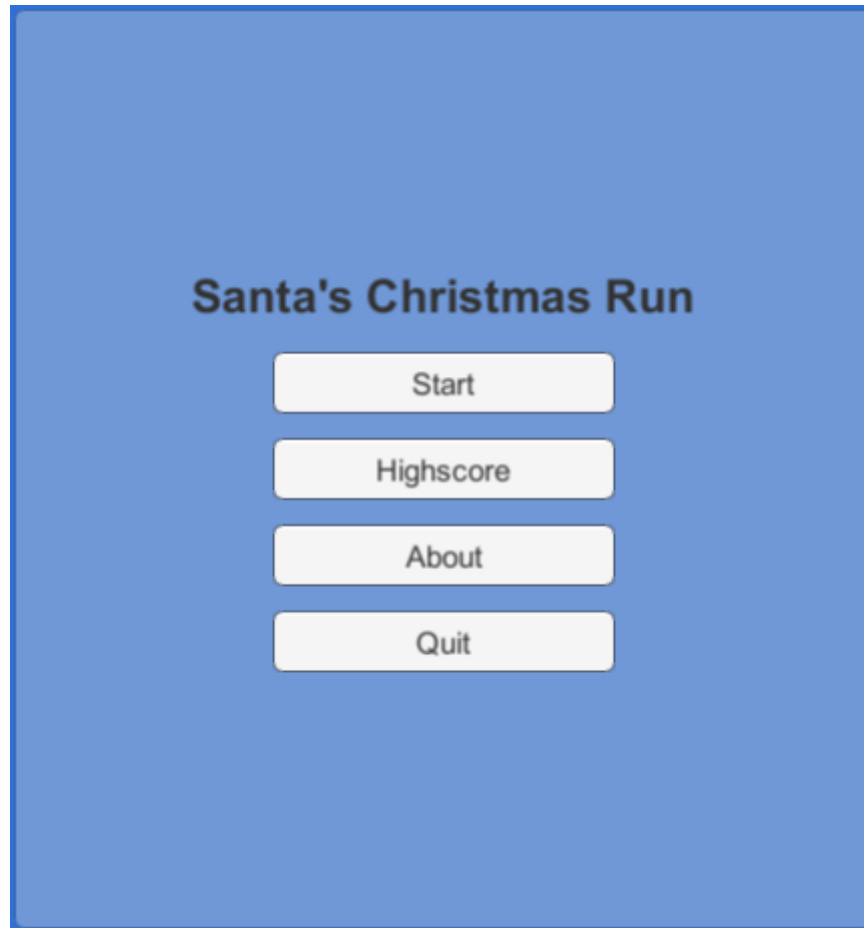– main focus is generating the map

Plan changes

— main focus is still generating the map

— more than only one algorithm to generate the map

— possibility to choose an algorithm

Plan changes

- not discarded but, even less priority than before:

  a. enemies

  b. collectibles

  c. graphics (including map-settings)

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User Interface

– main menu

→ **Mechanics**

Mechanics – Player movement

– Space to jump

– A / LeftArrow to move to the left

– D / RightArrow to move to the right

– speed depends on camera speed (3.5f), but is slightly faster (1.2 * cameraSpeed)
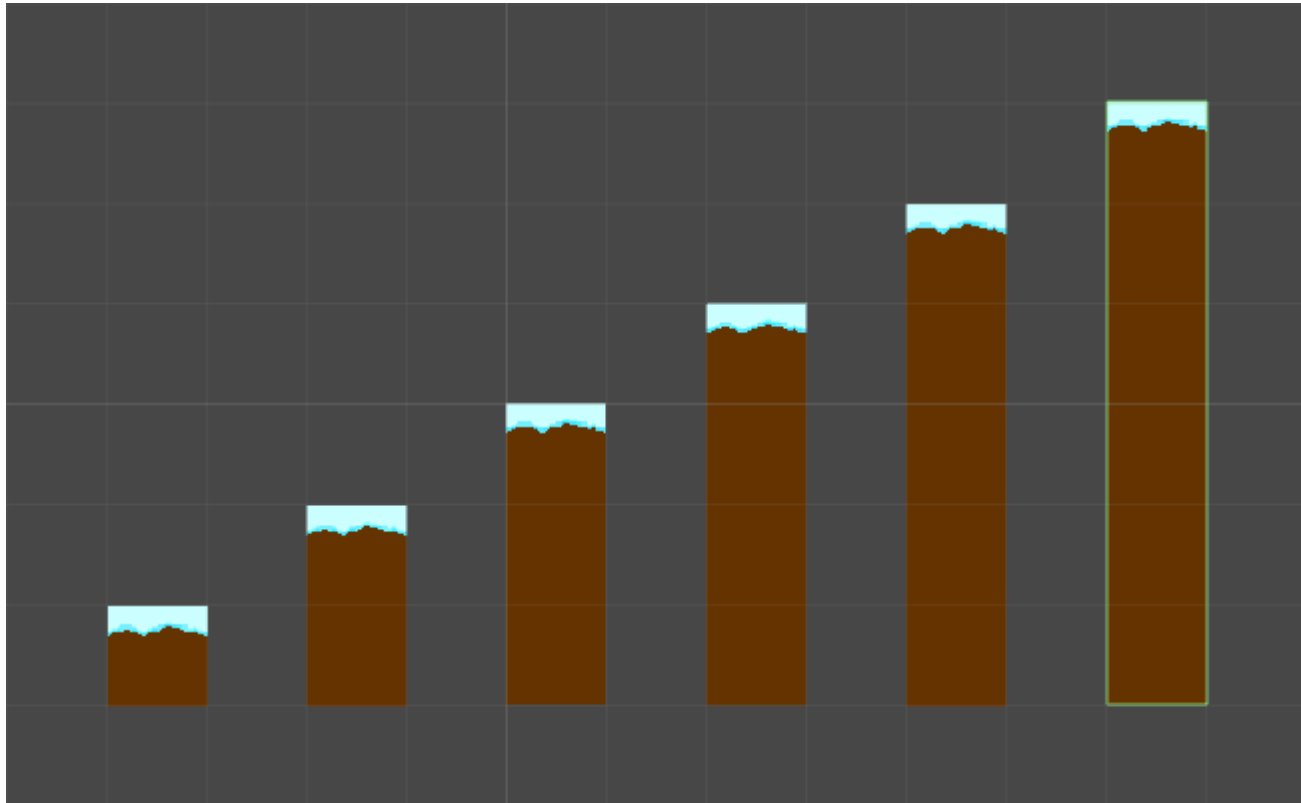
Mechanics – Camera movement

– starts moving as soon as the player presses A/LeftArrow or D/RightArrow

– continues to move even if the player stands still

– starting with speed value 3.5f, will be increased based on score

Algorithm(s)

- Prefabs

- First Algorithm

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Which platforms do we need?

- Larger platforms can be constructed out of our platforms

- 1x1 platform to create hovering platforms

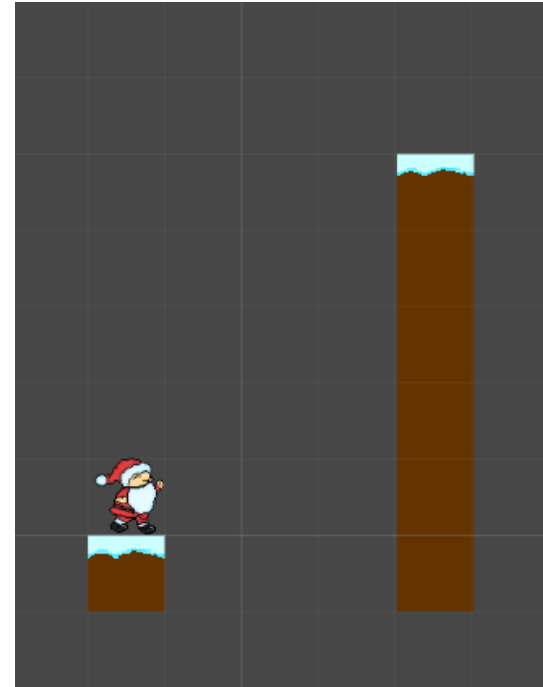→ **Algorithm**
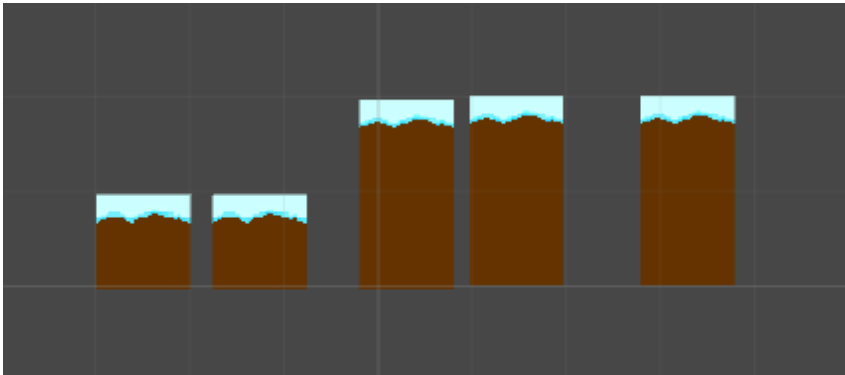
1. random number from 0 to 6

- For value 0-3 spawning next to the previous platform

- For values 4 and 5 spawning with a gap

2. Selecting the next platform

- Store the last used platform

- Depending on the platforms height we randomly choose our next platform

3. Choose the gap width

- Random number between 2 and 4.2

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→   **Perspective**

Optimization

Currently

- Creating and destroying platforms

- High resource consumption

Future

- Optimization pattern called Object Pool

- Reusing created platforms

- Disabling platforms instead of destroying

- Activating platforms instead of creating new ones