

### **Why is this program write?**

This is a game made for entertainment for the Christmas season 2021

Made for fun to get som retrospect of the Norwegian Mjuaffaspilet on modern systems and operating systems.

What are the pc requirements?

Cpu: Intel core m5

Ram: 8gb recommended

Gpu Minimum: Intel HD 520 / Integrated graphics.

Gpu Recommended: Dedicated GPU similar to NVIDIA GT 730M or AMD R7 M460 +

OS: Win 10 or 11 and Ubuntu 20.04 +

Working sound card.

APIS: Vulkan support. .net 4 / mono

Macintosh is going to be ignored.

### **Why these system specifications?**

This is the hardware the developer has access to at the lower end to in practis make sure the game runs on set system requirements.

### **Why not using DX?**

Because it going to be used on Linux and windows. Linux don't not have DirextX which means Vulkan or Opengl must be used on this platform. Because i want it to be so similar as possible on windows and Linux is Vulkan being used on both platforms.

### **Why not using Opengl?**

Vulkan is a newer API with better performance on newer hardware. Vulkan is closer to metal and better support for multi core performance which leads to better usage of modern hardware. Both better performance and energy effectively is benefits by using Vulkan over Opengl

Even if API like Opengl is wildly used by a lot of hardware and operating system can now Vulkan start to clam the same thing. Vulkan is now a good choose with hardware 2011/2012 onward wich this game is targeting.

### **Development team:**

Designer: Joachim Johnson

Programmer: Joachim Johnson

Documentation: Joachim Johnson

### **Where are the art taken from?**

The art is planed to be taken from <https://opengameart.org/> or similar sites. Some art are planed to be created for the game specify for this game using applications like gimp or blender for more fancy graphics.

Artist that's art is taken is should be written in the credits.

### **Why just unity?**

This is a program that's the develop previously know how to use and want to continue to develop their skills in. A future game might be to port it to unreal in a later project to learn Unreal engine.

### **The plans for the game design:**

Mjuaffaspillet is a big inspiration. A garage view with upgrades is planned and a scene with top down car driving view where you avoid colliding with traffic while collecting power ups and some kind of coins or points on the way.

Name	Description	Is it implemented as of now?	Importance. Lower is more important
Garage view	A scene where you see your car and can go on a spin with it.	Somewhat implemented	1
Road view	Here are you taking the car on a spin	Somewhat implemented	1
The car can be upgraded to give it different characteristics			2
Gangsta music implemented	Load in music from the hood to give it a special feeling of the hoods	Music loaded into project. Not used	1
Different power-up exist	Have different power ups similar to super Mario 2d scroller to temporary change characteristics of the car.		2
Meeting traffic exits on the road.	Have meeting traffic in the road view to make the game difficult.		1
Different kind of vehicle exist in traffic	Have different vehicles to make differences in the game. Should have different sizes and hit boxes. Truck vs cars vs motorcycles.		2
Different maps exist	Have different maps for the road view. And spawning in different vehicles at different frequencies.		3
Different languages support	Have support to load in different languages from files. Swedish and English to start with.		4
Local scoreboard	Have a local scoreboard to compare to different players.		4
Save game state	Save the current score and could pick up the last game. As long as you not lost the game.		3
Have different players or choose player name.			1
Implement nice shadows on road.	To make it more pretty to look at.		4

Keyboard and mouse support	Can control the game with mouse and keyboard	1
Touchscreen support	Can control the game with a touchscreen device	3
Ps 4 controller support	Can control the game with a ps4 controller	3
Have different graphics modes for different computers	Self explaining.	1

### **How are this game going to be develop t?**

This is going to be programmed on the time exist to program on this project. The game is going to be develop t on a very agile way there the requirement might change during development.

### **Game play:**

You have a garage view that's are the center or the game. From here do you see your car in the current stat. From here can the player upgrade the car with in game money they have. From the garage view can you take it on a spin where you can earn moor money from picking it up from the street or reach the destination.

On the road do you meet different vehicle with different sizes. Pedestrians are there as well. Crashing into either pedestrians and vehicle damaging your car which you must repair later on for in game money.

The game ends the player destroy their car or then when the player have all upgrades on their cars + 1 million in game money units on the bank account.