

Dear purchaser,

We are thankful for Your interests in our projects. We glad that You help us to stay up and support us financially. We are working truly for You – developers, to provide with the best product, which could help You to unleash Your fantasy and don't be worry for lack of experience. Our main goal is to teach more people programming basics and inspire them to become independent creators who could change the world with their products. Our team is always ready to provide professional support, we will respond to You as soon as possible. We would appreciate if You could express an opinion on the marketplace. In this way, You will help us to develop and create new content faster.

Good Luck!

Tadas Gricius

STREET RACING ENGINE

MANUAL

CONTENT

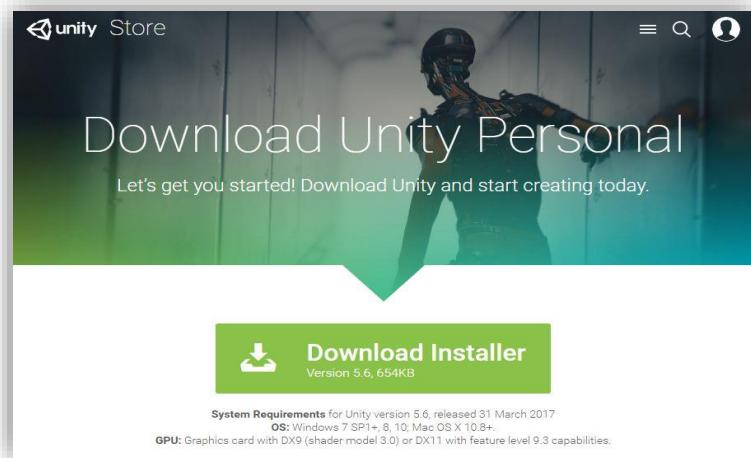
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(To see better pictures use zoom tool)

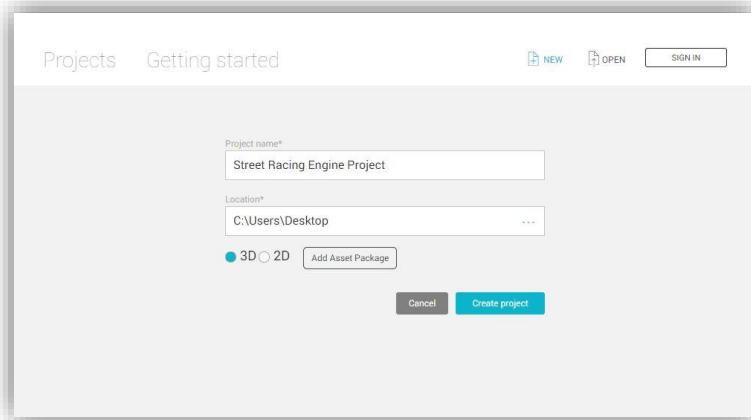
If you have any questions contact us to email: deckofdev@gmail.com

1. SETUP PROJECT

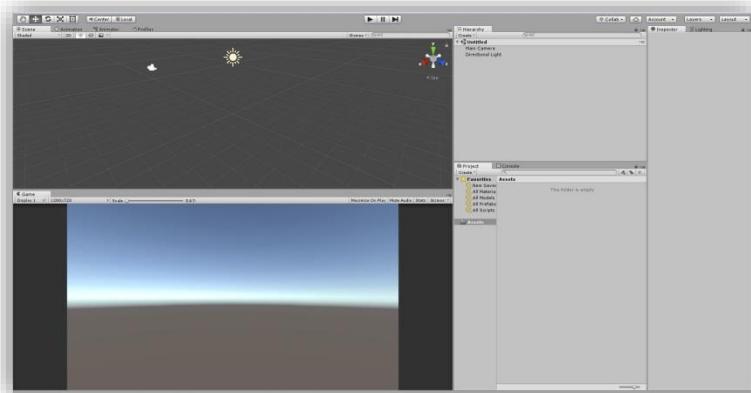
1. At first we will need the engine. Download the newest version of Unity3d. On this documentation we will use Unity version 5.6. You can download Unity 3d from the website link: [Go to Unity3d website](#).



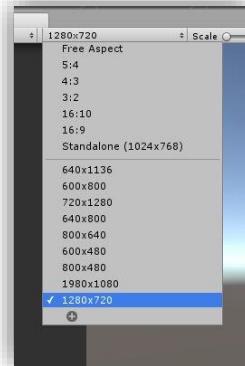
2. Install engine using recommended settings and launch the program.
3. Create new project. Write your project name and select file location. We don't need to add any standard asset packages.



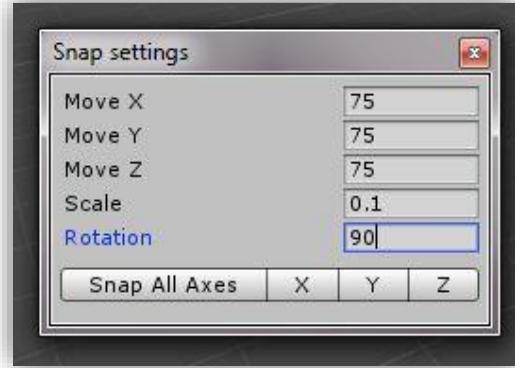
4. Change the editor layout as you like. Our basic layer will look like this:



5. Change screen ratio from free aspect to 1280x720.



6. Go to Edit>Snap settings, change values as in the picture and press Snap All Axes. It will help you in the future while creating cities.



7. Go to Edit>Project Settings>Quality and change Pixel Light Count to 15(do it for all levels). It won't take any effect on performance, but it will help editor to deal with all lights faster and there won't be any glitches.



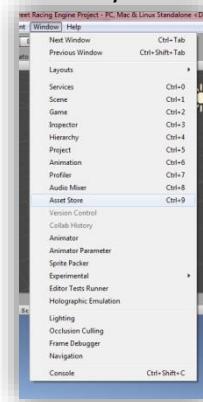
8. Great now we have fully working project. Next step will be importing asset.

2. IMPORTING PROJECT

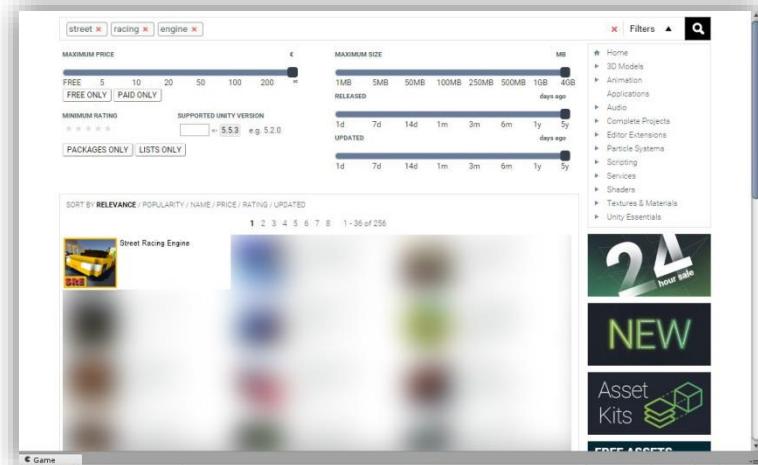
There's two ways to import the project. Using Unity3D or .unitypackage file. We will show you both ways to import asset to your scene.

A) Using Unity3D asset store(If you bought game from unity asset store):

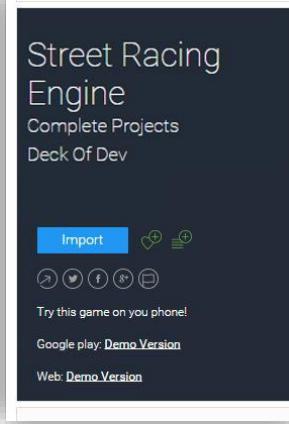
1. Go to Window>Asset Store or press Ctrl+9.



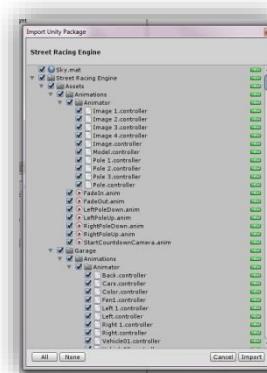
2. Type into search bar "Street Racing Engine" and find the project.



3. On the new page click import. The table with information will pop-up, just click again import.

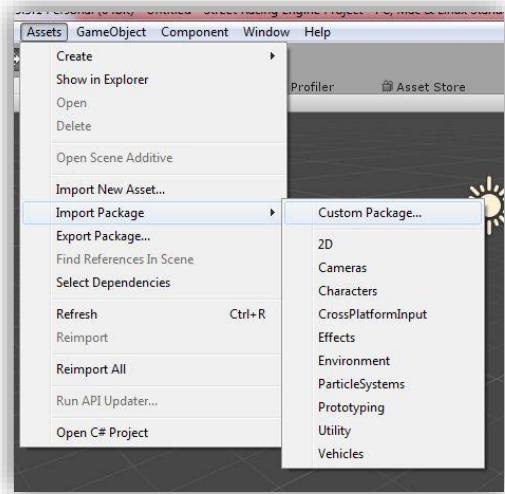


4. The table with all project files will pop-up. Check them all and press import.



- B) Using .unitypackage file (If you bought the game from other marketplace)

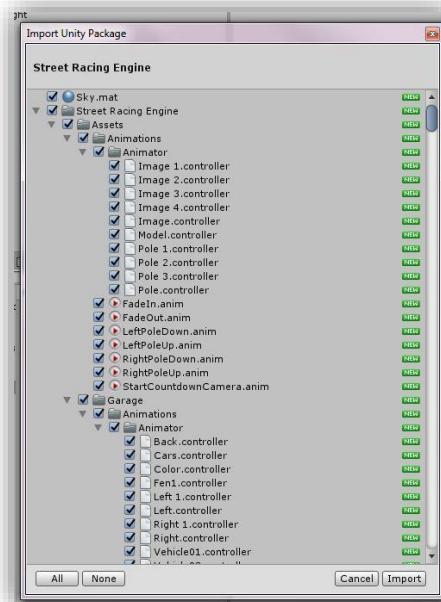
1. Go to Assets>Import Package>Custom Package



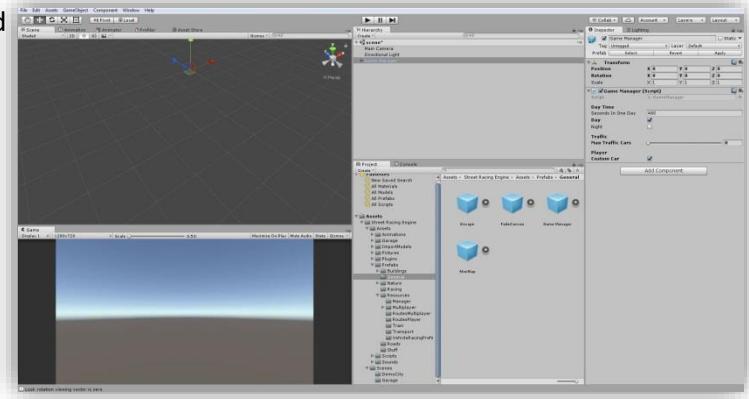
2. Go to your asset download location, select "Street Racing Engine.unitypackage" and click open.



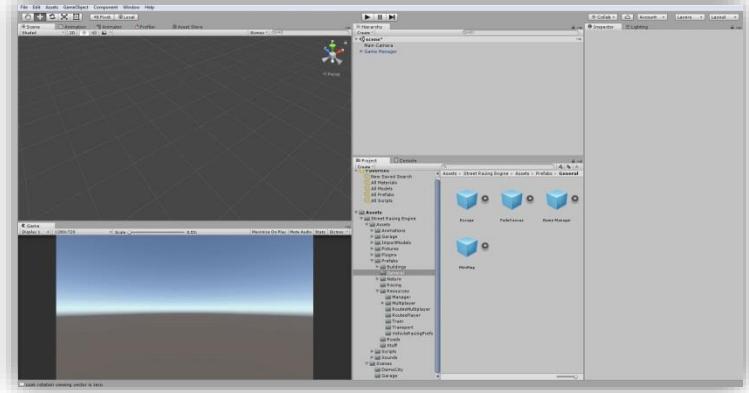
3. The table with all project files will pop-up. Check them all and press import.



4. Go to Assets>Prefabs>General and find Game Manager prefab. Attach it to hierarchy. At the moment, set Day Time, Traffic and Player settings as shown in the picture.



5. Game manager has light so you don't need any other directional lights. In order to, delete Directional Light prefab.



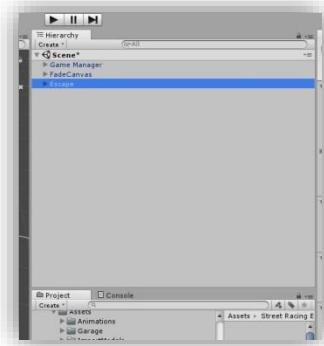
6. In the project go to Assets>Prefabs>General and find "FadeCanvas" prefab.



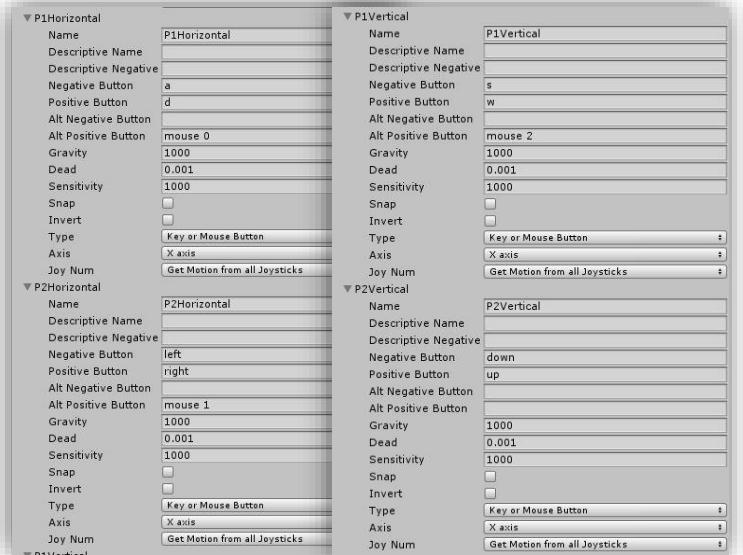
7. Attach "FadeCanvas" prefab to hierarchy. It will help you to create smooth transitions through different scenes.



8. Attach “Escape” prefab to the hierarchy.



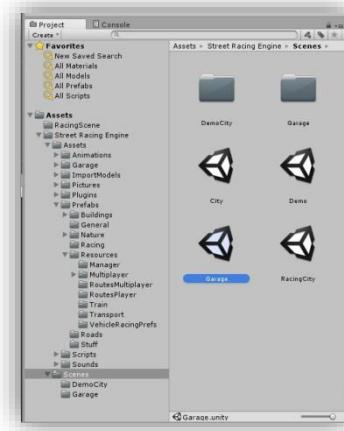
9. Setup multiplayer input for vertical and horizontal axis.



10. Go to Lighting, deselect Auto bool and press Build. It will build lighting for your scene.



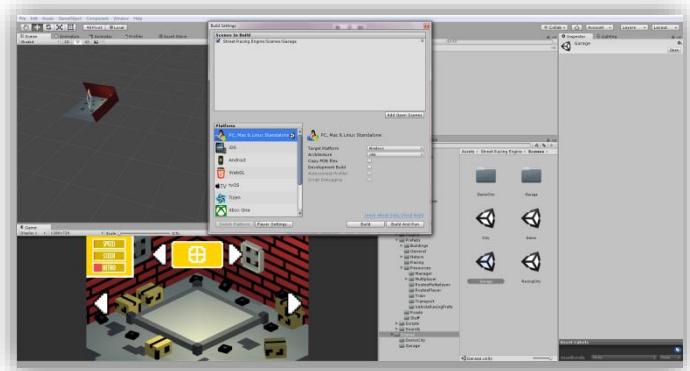
11. Save scene where you want, go to scenes folder and open Garage scene.



12. Go to Files>Build Settings and press Add Open Scenes then go back and add your city scene do everything same. You should have then 2 open scenes in the "Scenes In Build".

0 – Garage

1 – City

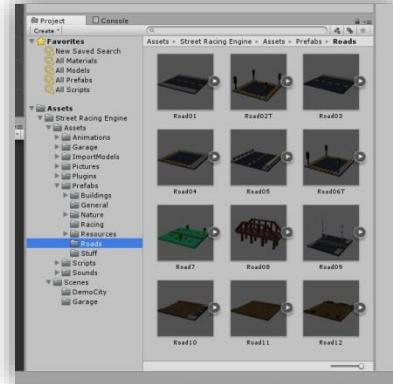


13. Delete Main Camera in order to not get conflicted with player camera which will be spawned later.

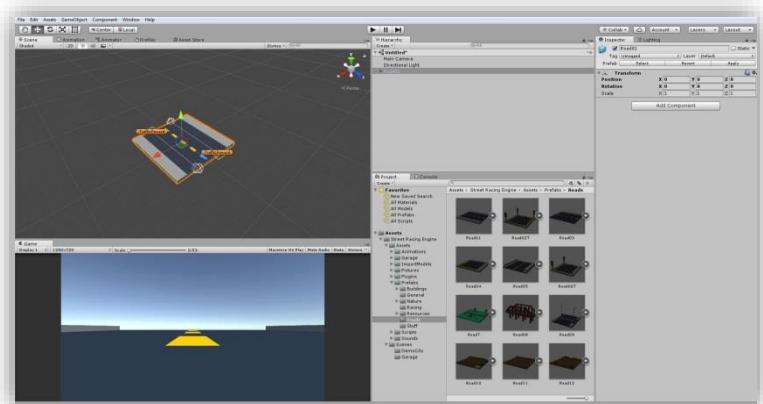
3. ROADS

First, to start some race we need to create a city with roads, buildings and traffic. So let's do it!

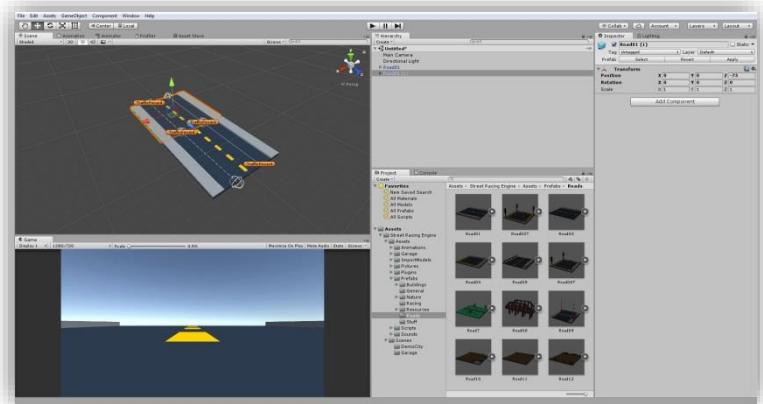
1. Go to Assets>Prefabs>Roads (If you can't see the models then right click on one of the prefabs and select reimport all)



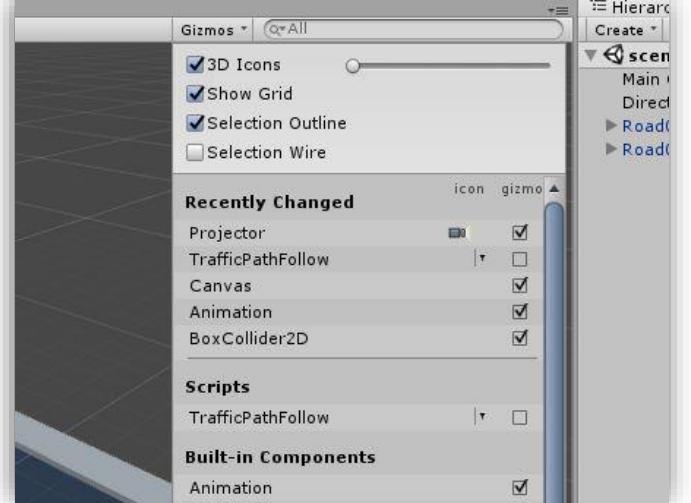
2. Drag model "Road01" into the scene and set the position to 0.



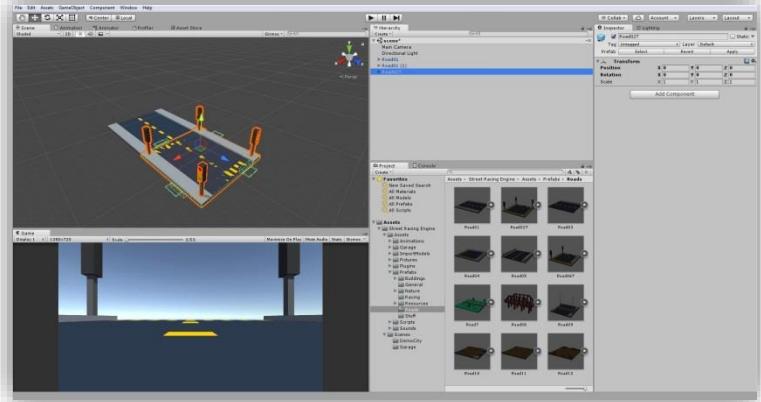
3. Duplicate the model (Ctrl+D) and holding Ctrl drag Z arrow forward.



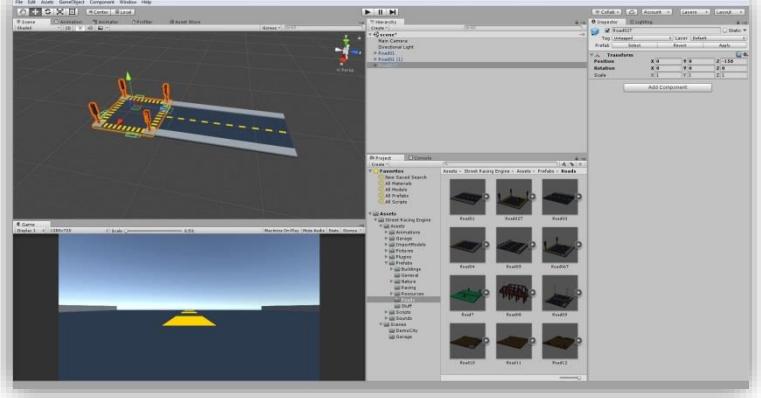
4. If you don't want gizmos to appear then go to Gizmos and disable TrafficPathFollow also minimize 3D Icons to 0.



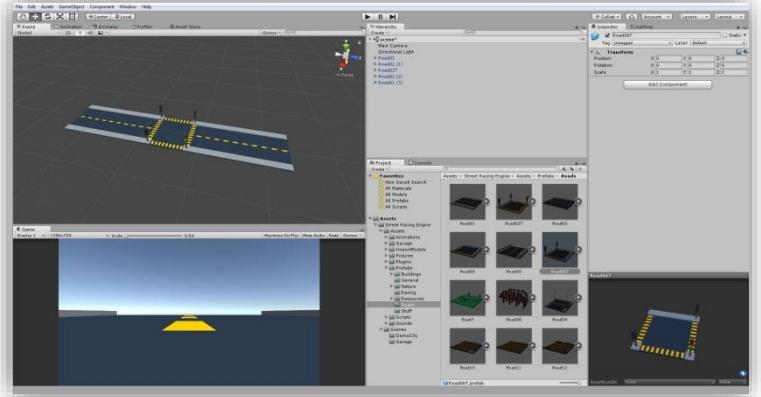
- To make crossing we will find “Road02T” and add to scene. The position of prefab should be 0.



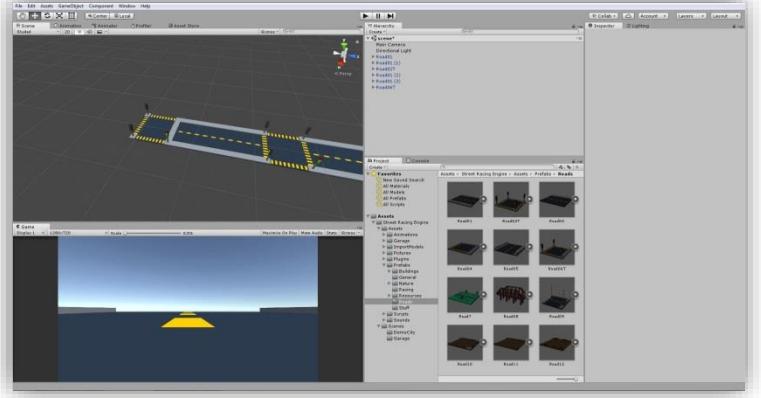
- Again, holding Ctrl drag Z arrow forward when Z position will be 150 or -150.



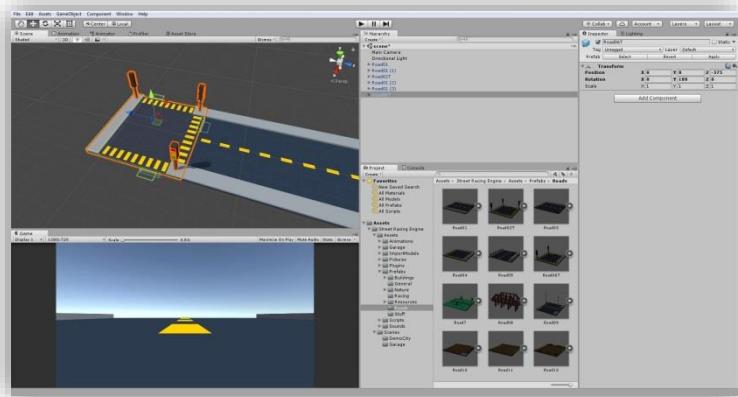
- Now add few more roads.



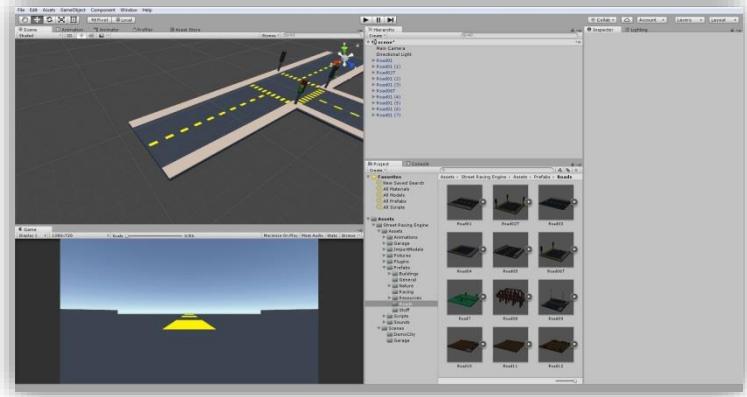
- Add crossing road with only two exits “Road06T” and drag it to the end of the road.



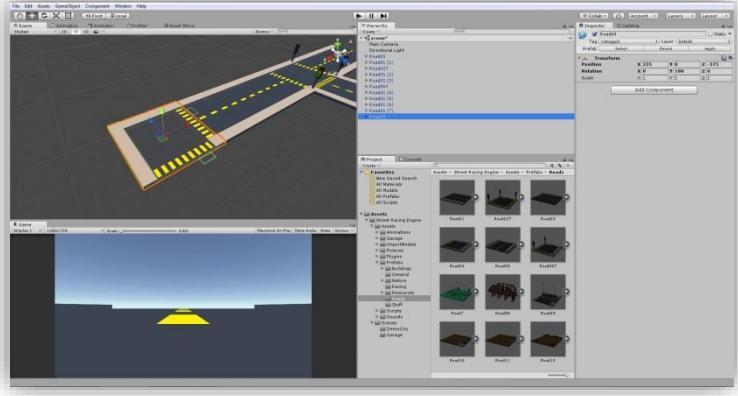
9. It's facing wrong direction. Change Y rotation to 180.



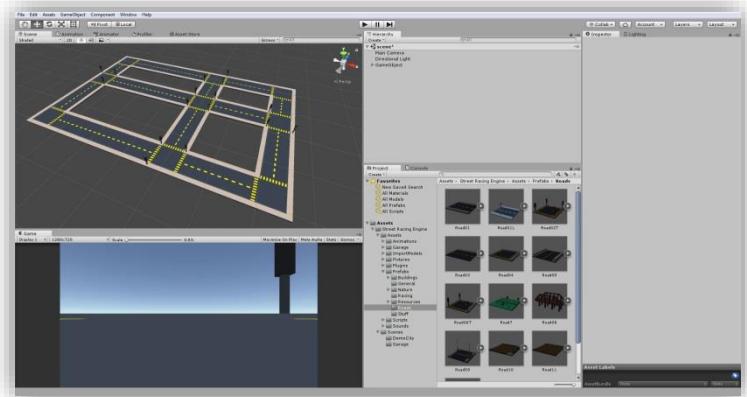
10. Add few more roads and change direction for both roads to 90.



11. Now we will add corner road "Road04" and change Y direction to 180.



12. Great, now add remaining roads. The final result should look something like this.



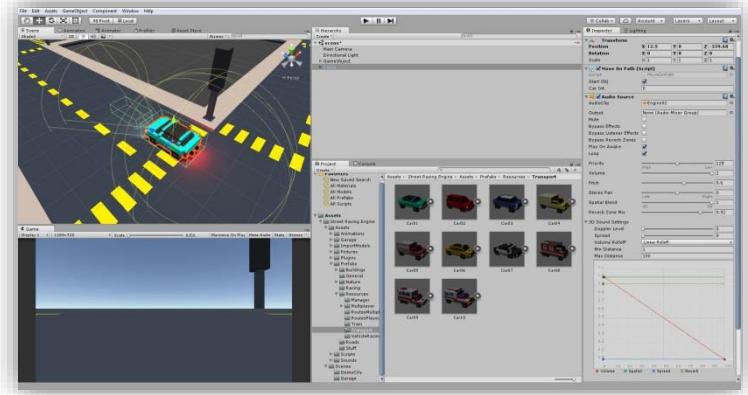
4. TRAFFIC

There's two ways to make traffic. You can set transportation manual or make it random. Each road represents spawn place for traffic.

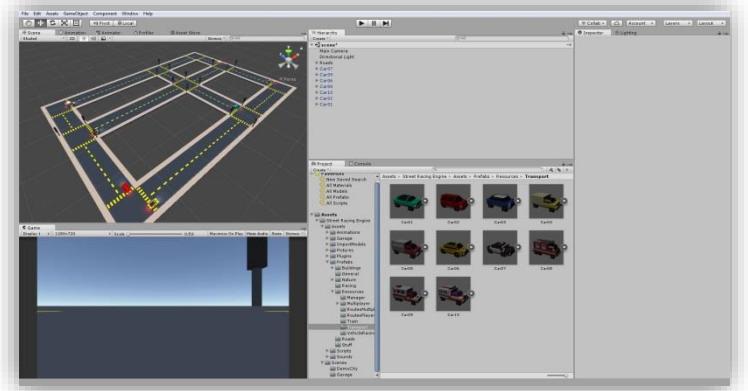
A) Manual:

1. Go to

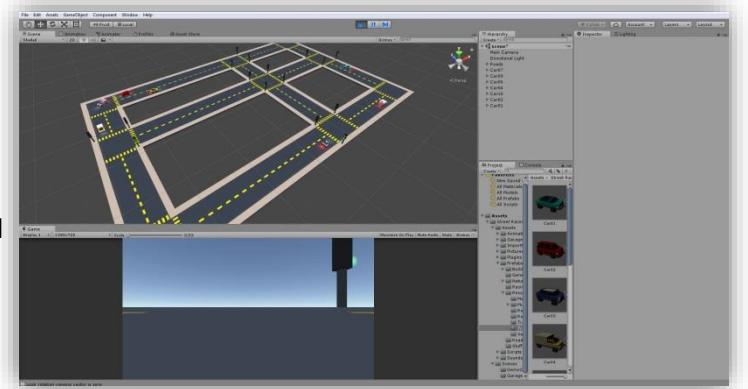
Assets>Prefabs>Resources>Transport and choose car which you want to spawn. Then drag it onto the road. Car must collide with road side(See the picture).



2. Add as much traffic as you want.

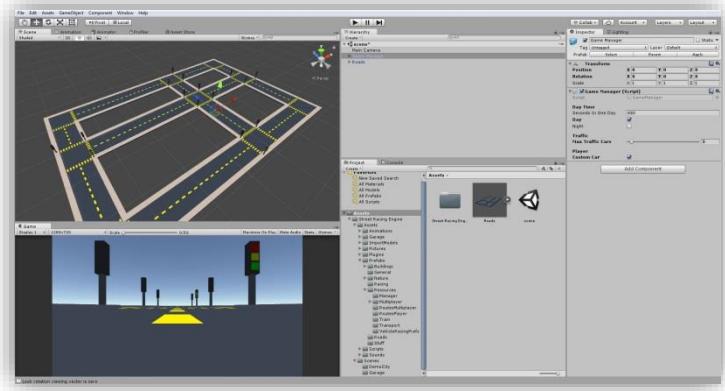


3. Press play and watch them go! Traffic responds to other cars and stops if there is an obstacle in front of the car. Each vehicle reached intersection will choose different path randomly. Cars reacts to traffic lights at crossroads and follows right hand rule. Stops at train barrier when train is crossing the site. All traffic cars has integrated different particle systems, fume emission and lights. Engine sounds depends on whether the car is moving or is stationary.

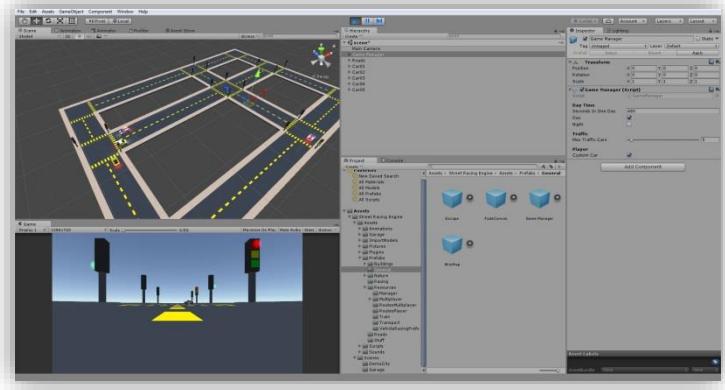


B) Random spawning traffic:

1. Go to Game Manager and change Max Traffic Cars float to 5.



2. Hit play and watch them go!

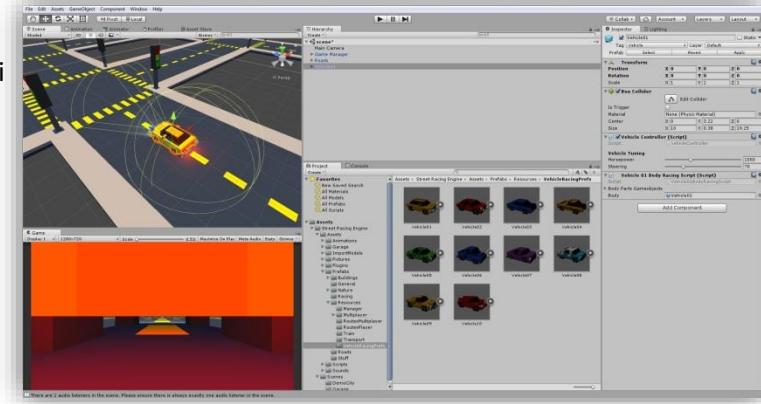


5. PLAYER

Like traffic there's two ways to spawn player.

A) Manual:

1. Go to
Assets>Prefabs>Resources>VehicleRaci
ngPrefs and select the car you are
going to use

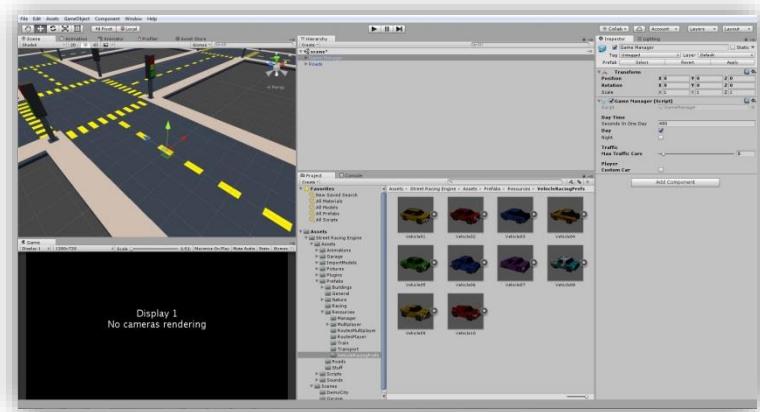


2. Hit play and you're ready to go!

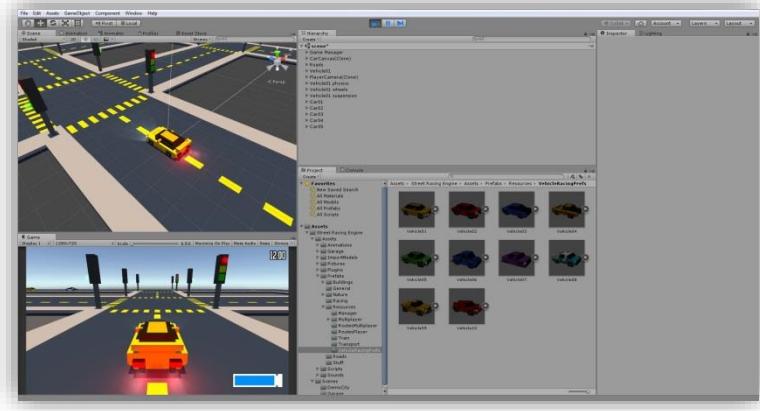


B) Automatic spawning:

1. Go to Game Manager and deselect Custom Car bool.



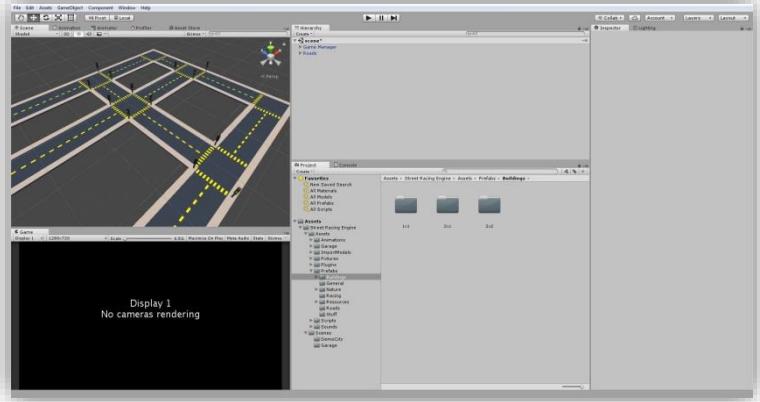
2. Hit play and you're ready to go!



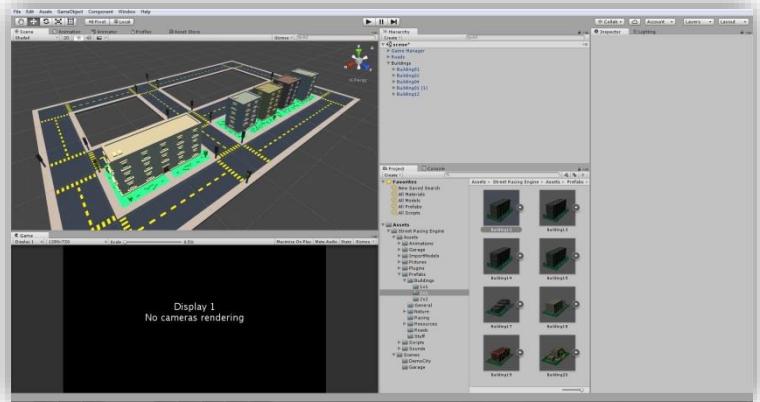
6. BUILDINGS

You can add different buildings using prefabs and other models.

1. Go to Assets>Prefabs>Buildings and choose what dimensions building you want to add.

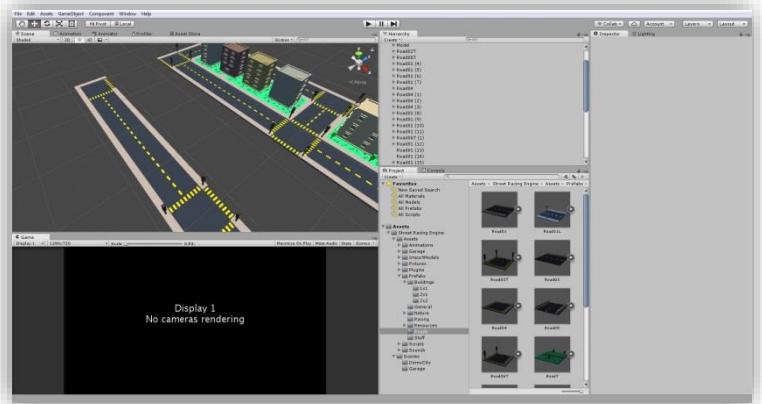


2. Attach buildings to the scene.

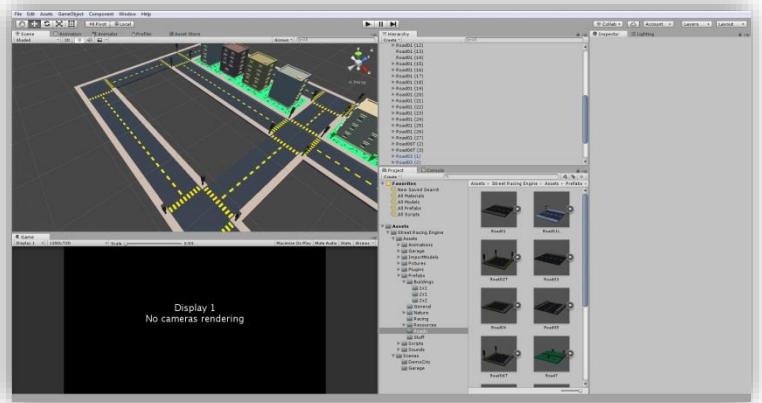


7. INTERACTIVE ROADS

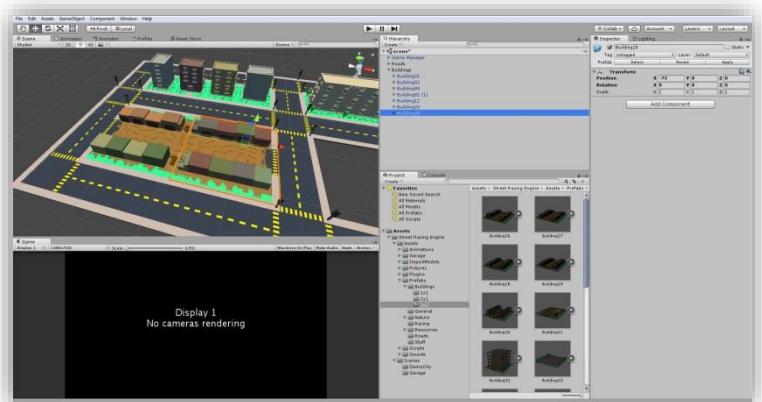
1. Delete side roads like in the picture.



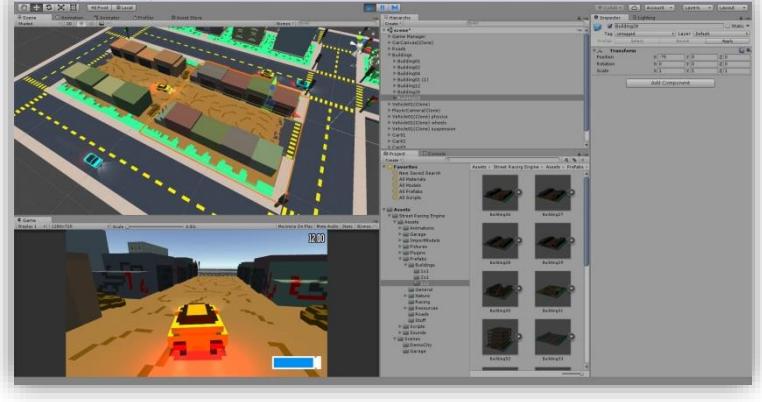
2. Attach "Road03" which will not have one sidewalk.



3. Add buildings which have interactive roads like "Building26" and "Building28".



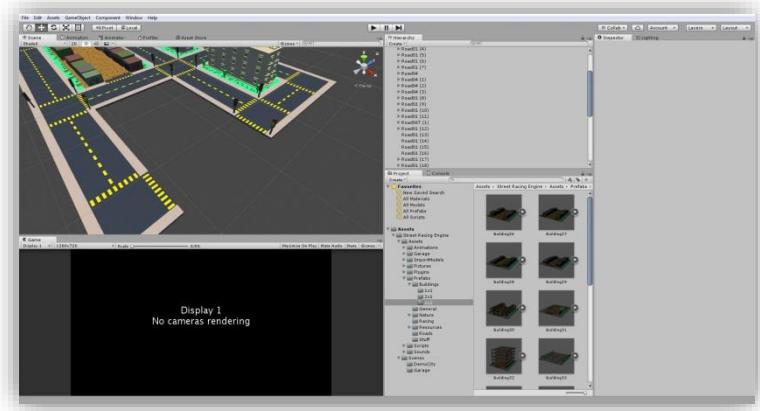
4. Hit play and try it!



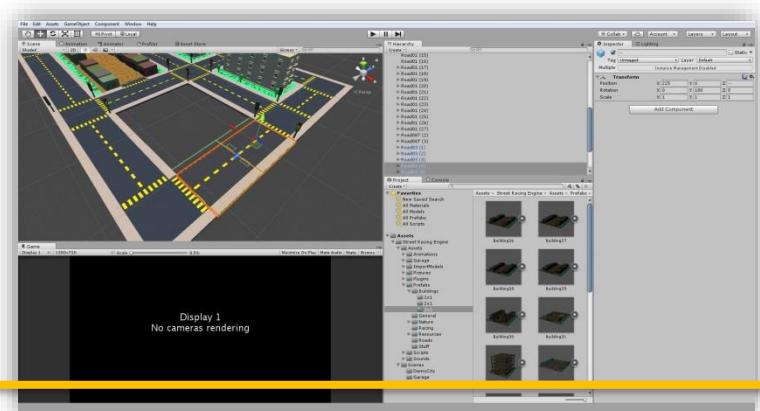
8. HOME PLACE

By default player spawn position will be (0,0,0), but if you want, you can add player home gameobject which will set new position where the player will be spawned.

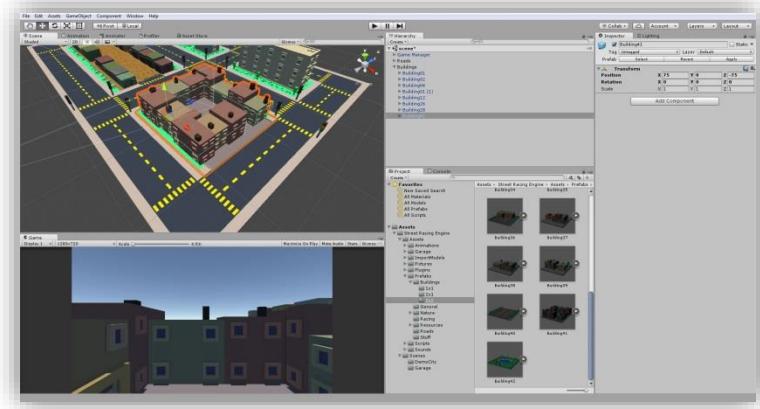
1. Delete two roads on the side.



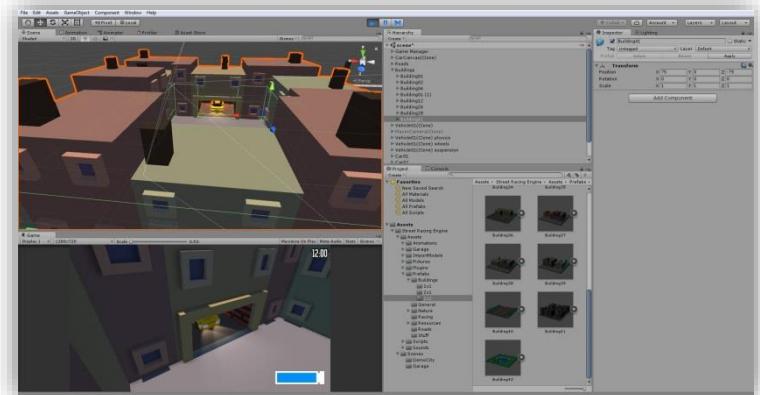
2. Attach "Road03" which will not have one sidewalk.



3. Add Home gameobject "Building41" in the empty place.

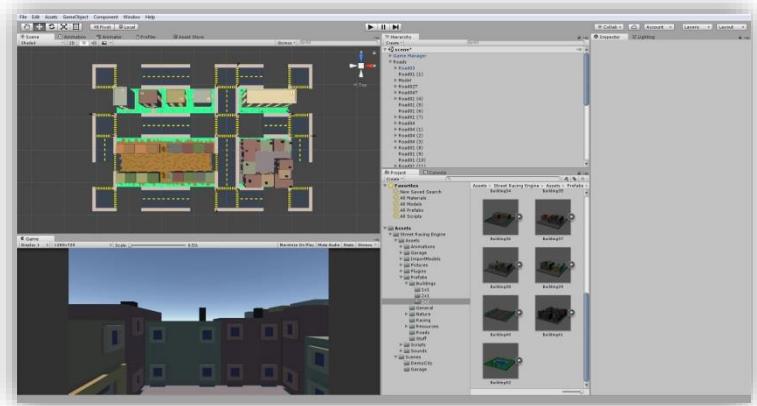


4. Hit play and try it!(If it's not working there's probably missing home tag. Select Building41>Model and change tag from default to Home. If there's no home tag, then create new).

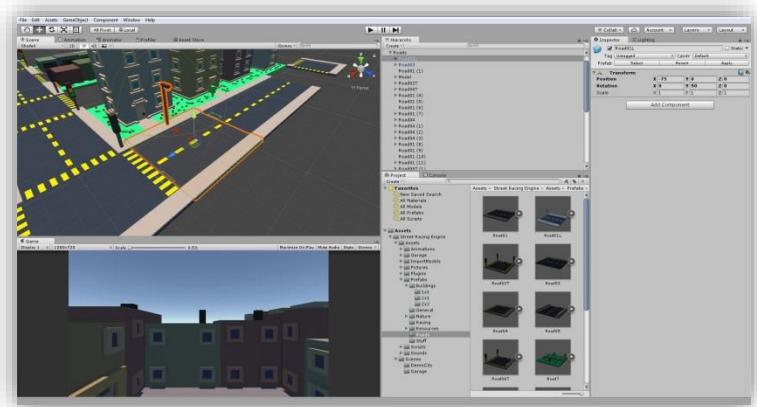


9. TRAFFIC LAMPS

1. Delete roads where you want to place road tiles with lamps.



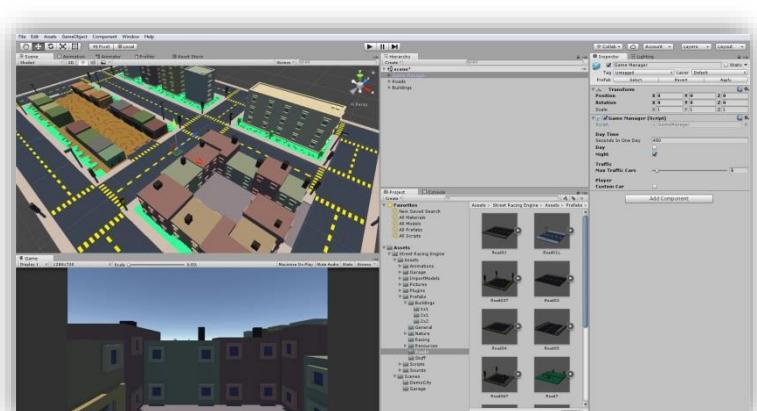
2. Attach "Road01L" in the empty place.



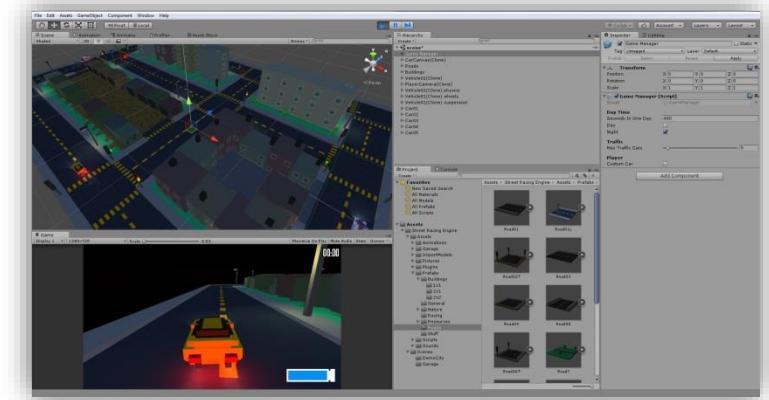
3. Duplicate roads with lamp and add in all places where you deleted roads.



4. In the Game Manager enable Night bool and disable Day bool.

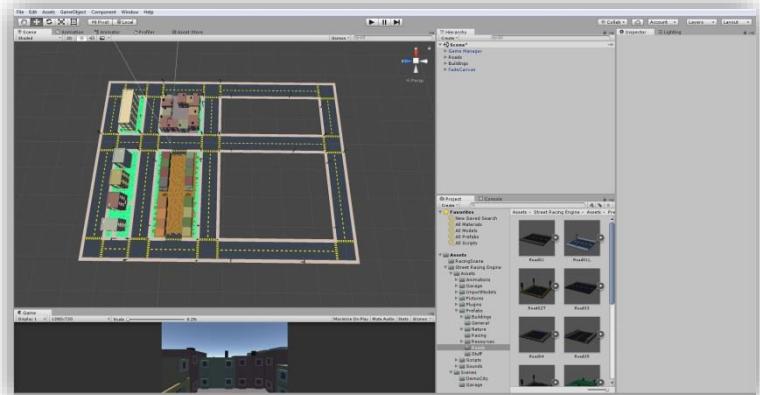


5. Hit play and try it! Lamps automatically will turn on when the night comes out.

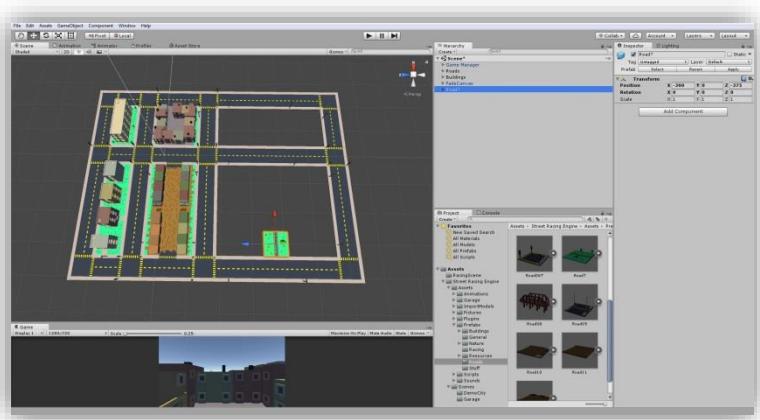


10. TRAIN SYSTEM

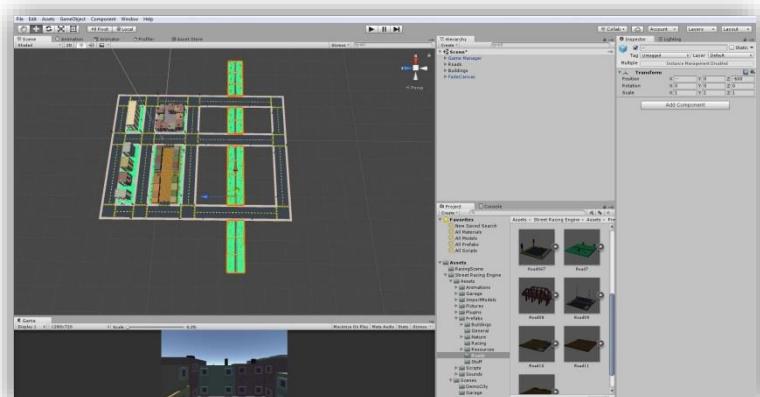
1. Create bigger space where we can add train roads.



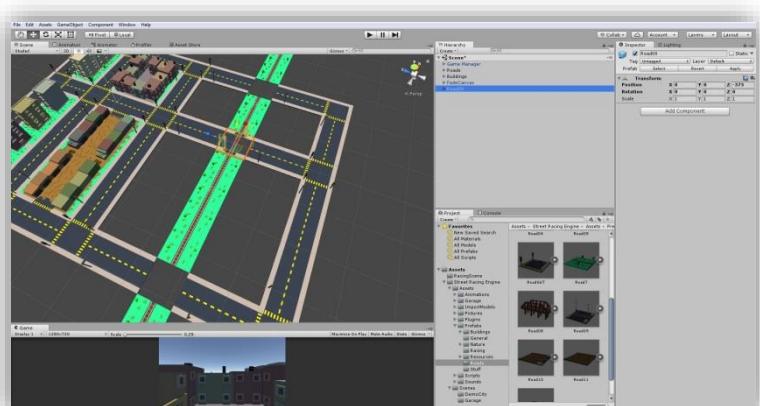
2. Go to Assets>Prefabs>Roads and find "Road7" attach it to hierarchy.



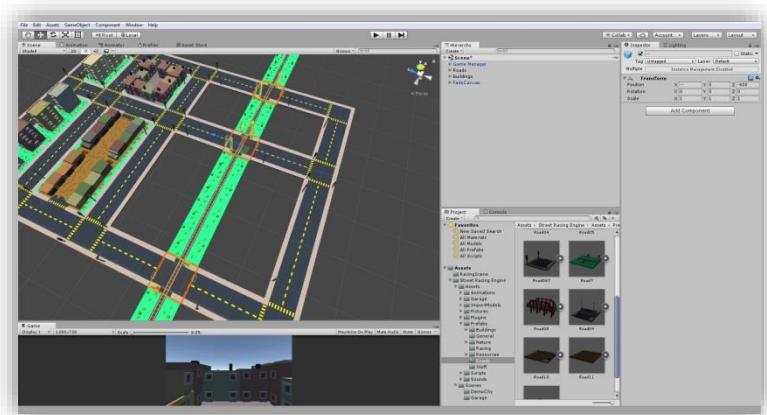
3. Duplicate "Road7" models and make a railroad.



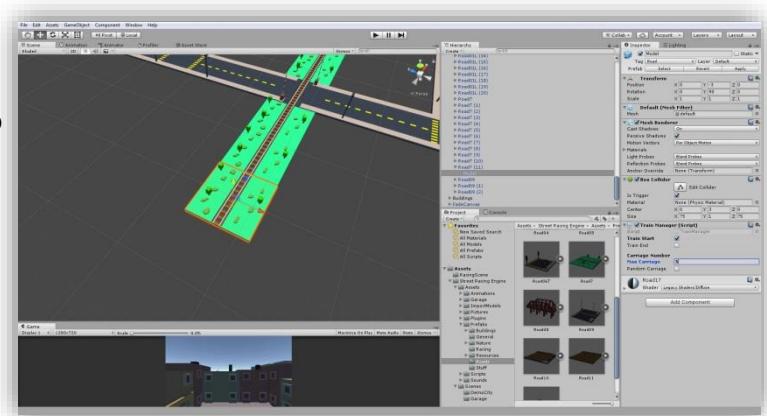
4. Delete roads where train roads crosses and attach "Road09" into empty place.



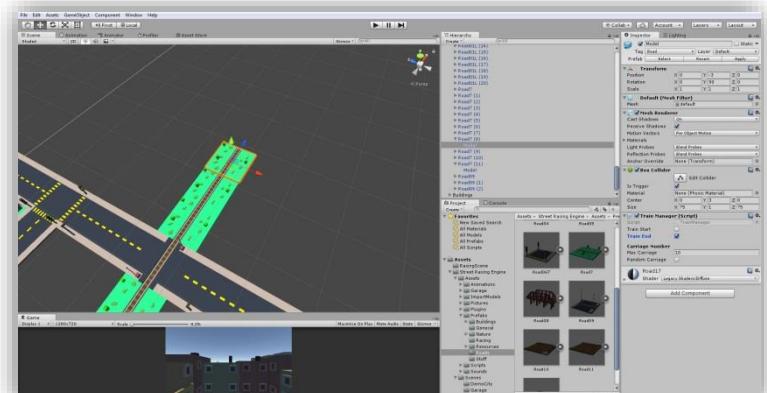
- Duplicate “Road09” and place them into all empty places.



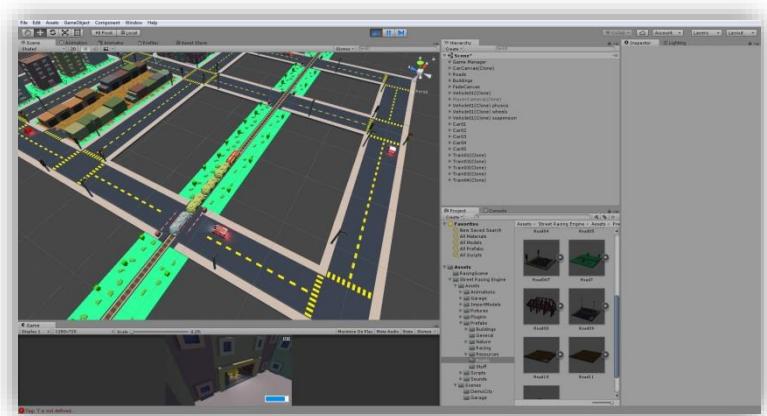
- Find the model where the train will spawn and enable “Train Start” bool. Also, you can change max carriage number. If you want to spawn random number, enable random carriage bool.



- Find the model where the rain will be destroyed and enable “TrainEnd” bool.

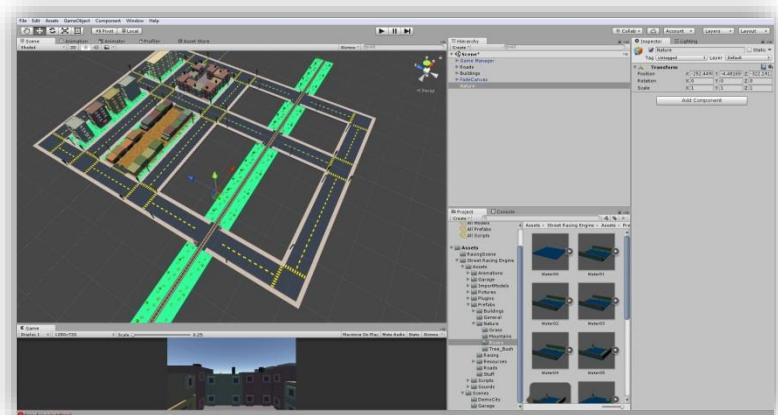


- Hit play and try it!

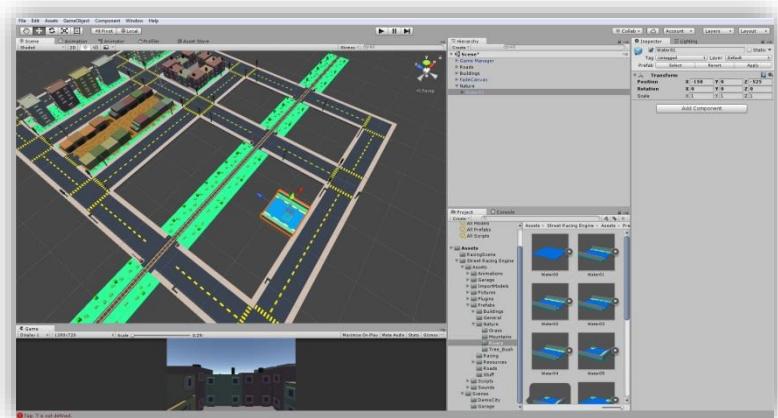


11. RIVERS

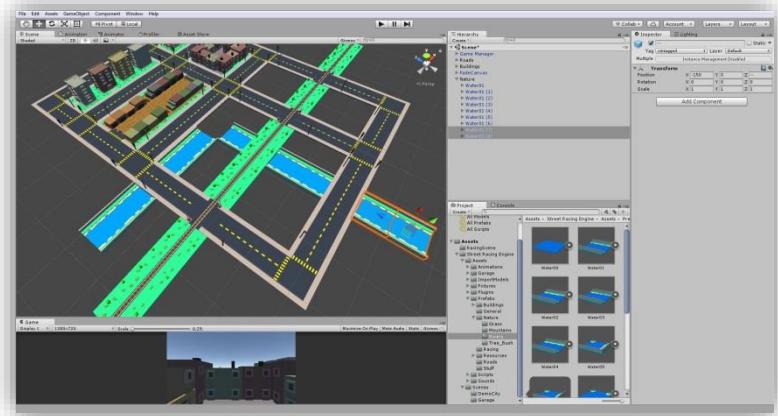
1. Create “Nature” gameobject. Go to Assets>Prefabs>Rivers and find “Water01” gameobject.



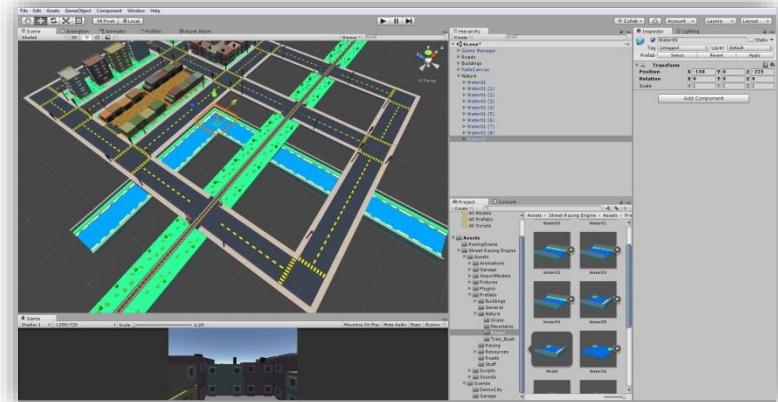
2. Attach “Water01” to the hierarchy.



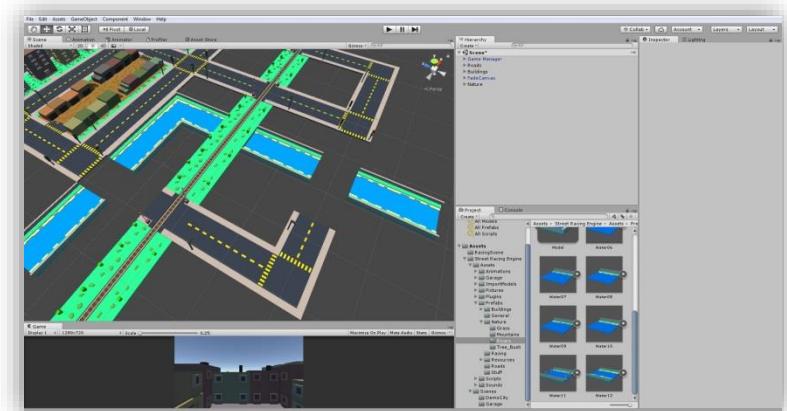
3. Create river path.



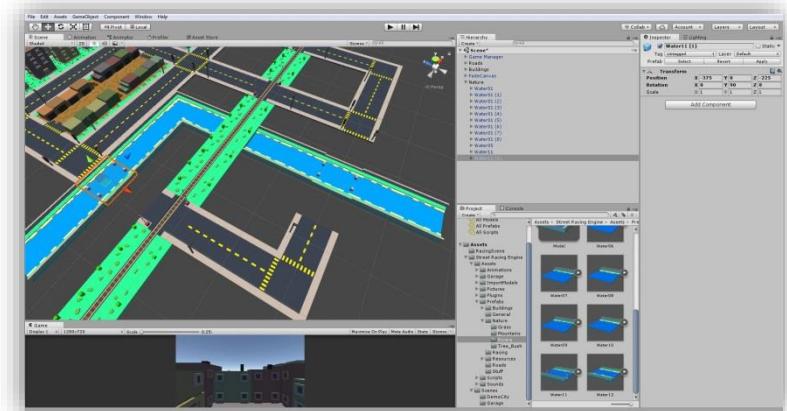
4. Add river corner model “Water05”.



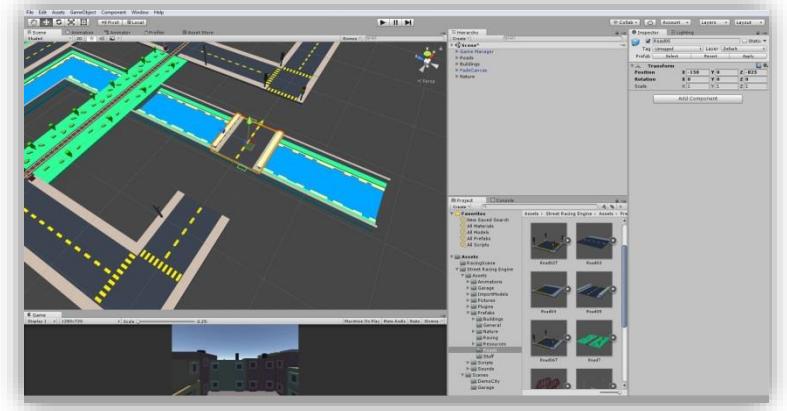
5. Delete roads where river crosses.



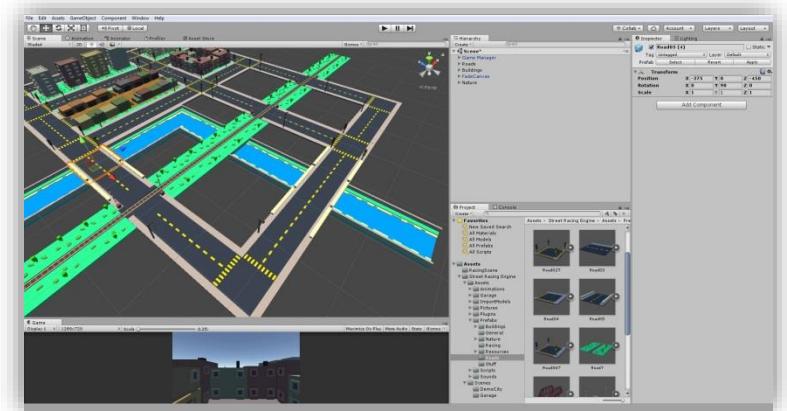
6. Attach "Water11" gameobject with pillars.



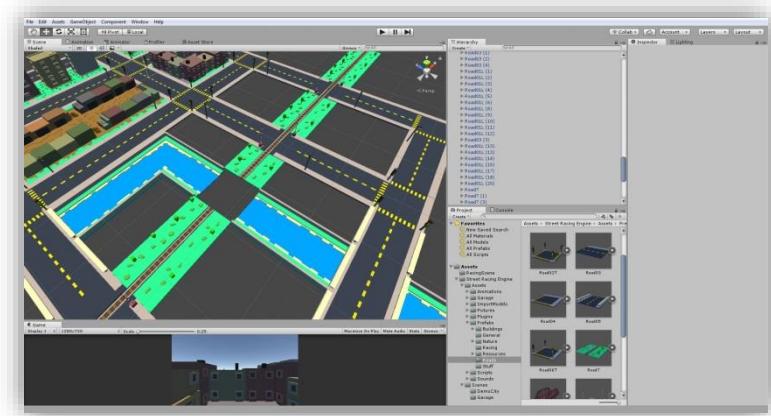
7. Add "Road05" at the place where you deleted roads.



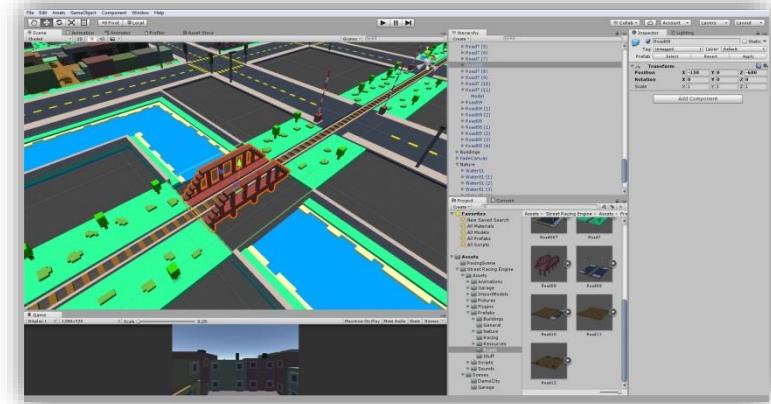
8. Duplicate "Road05" and fill in all empty places.



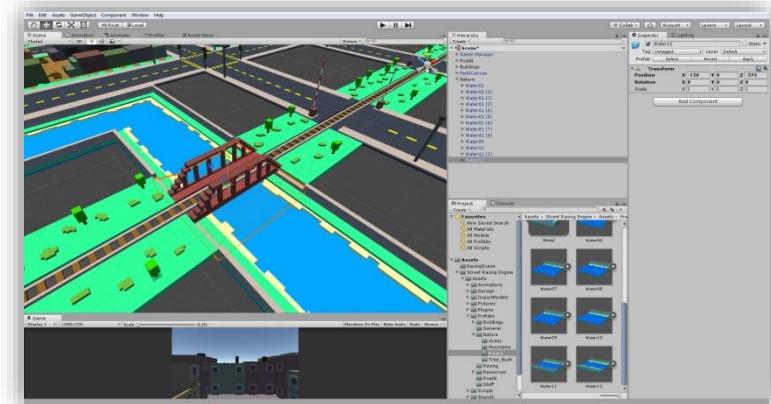
9. Delete railroad where river crosses.



10. Attach "Road08" gameobject to the scene.



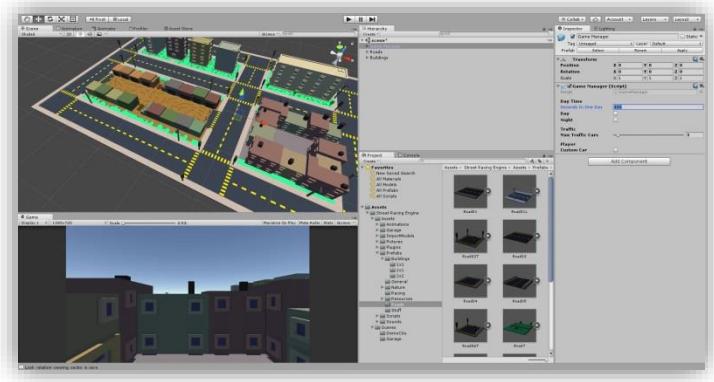
11. Find "Water12" prefab and attach it to hierarchy. In the place where river was missing.



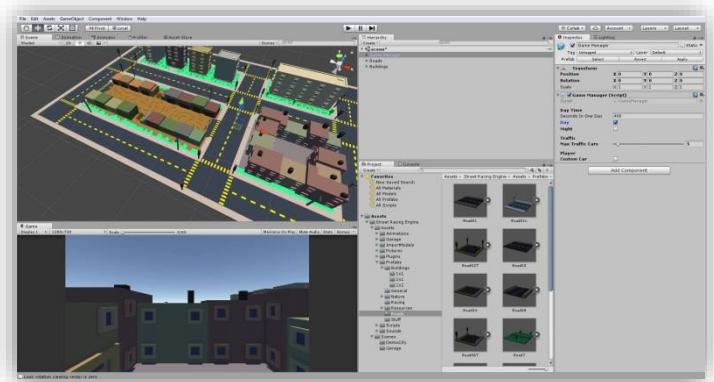
12. CUSTOM TIME

You can change time manual if you want to.

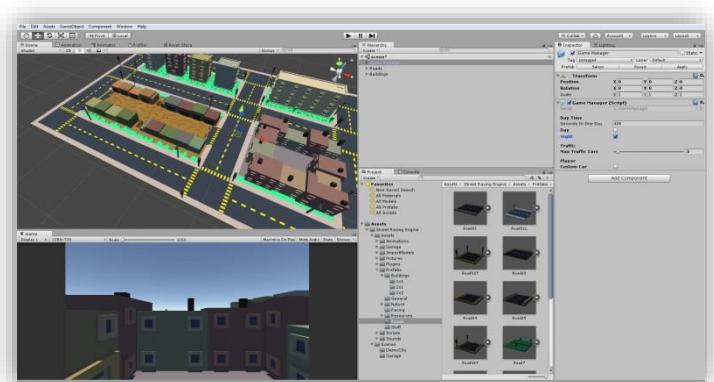
1. Change duration of one day.



2. Make custom time. Always day. Select Day bool.

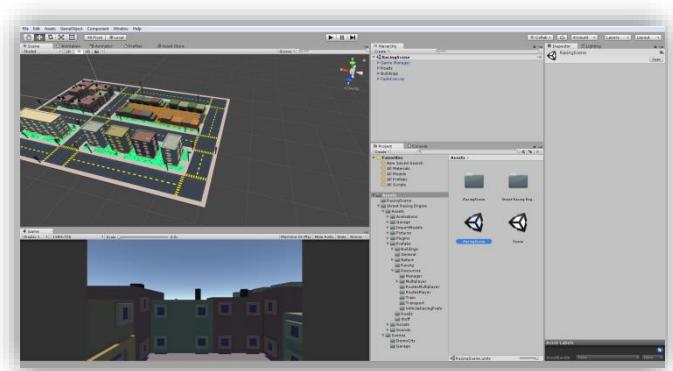


3. Make custom time. Always night. Select Night bool.

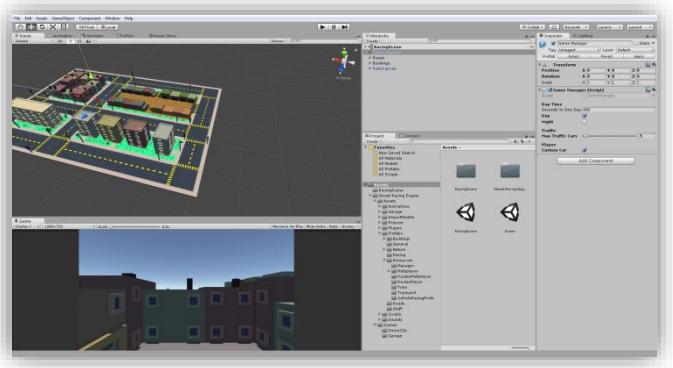


13. RACING SCENE

1. Go to the folder where you saved city scene. Duplicate city scene and rename it to Racing scene.



2. Open Racing scene. Go to Game Manager and turn on Custom Car bool.



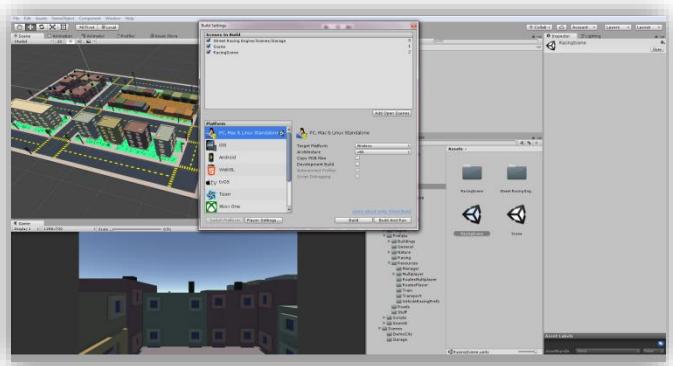
3. Go to Files>Build Settings and press Add Open Scenes. You should have then 3 open scenes in the "Scenes In Build"

0 – Garage

1 – City

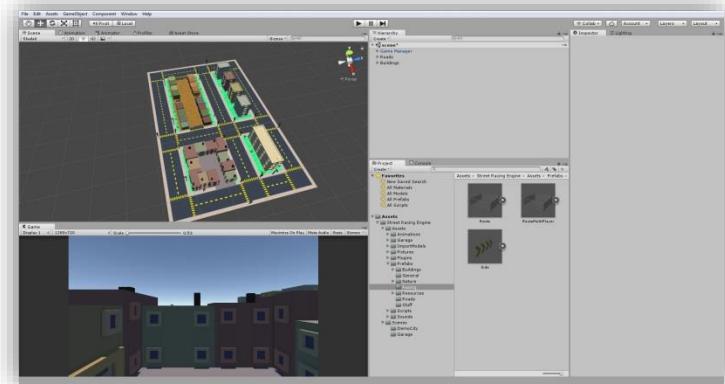
2 – Racing City

If you don't have one of these then go back to "Importing Project" and follow all steps.

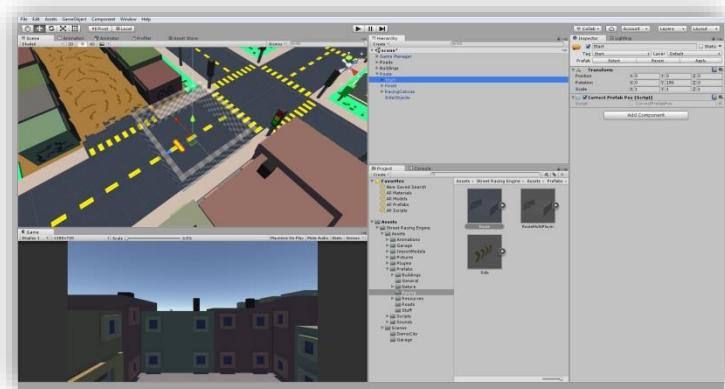


14. ONE PLAYER RACING ROUTE

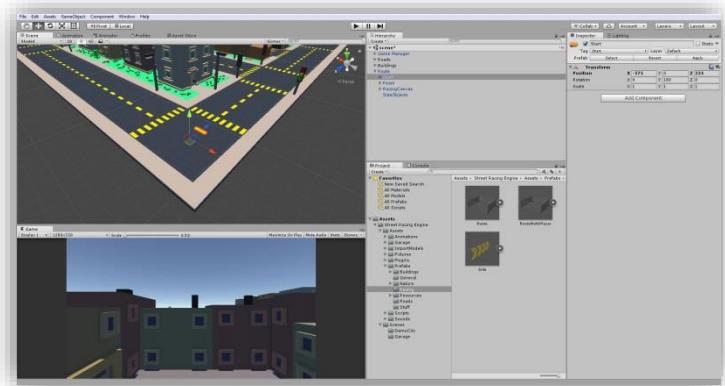
1. Go to Assets>Prefabs>Racing and find “Route” prefab.



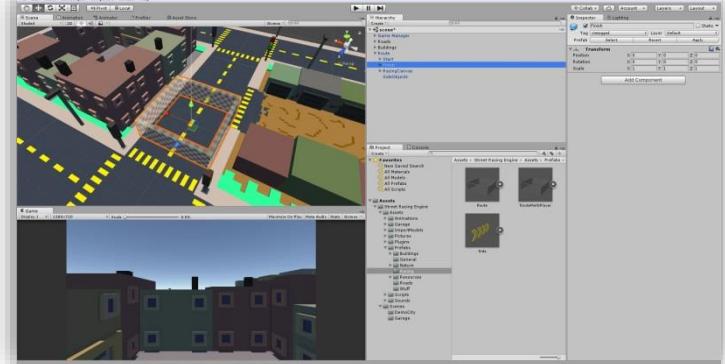
2. Attach prefab to game hierarchy and find “Start” gameobject.



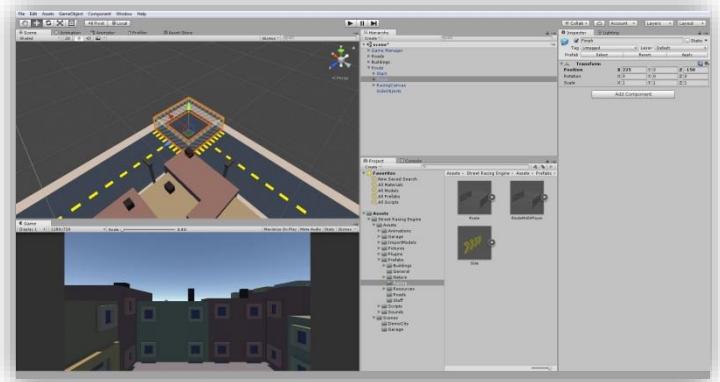
3. Move “Start” gameobject into the corner of the map. This will be place where player will be spawned when the race starts.



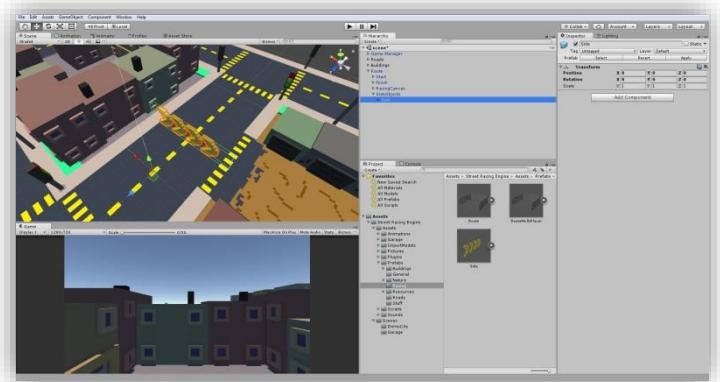
4. Go back to the Route gameobject and find “Finish” gameobject.



5. Move “Finish” gameobject into the other corner of the map. This will be place where player will finish his race.



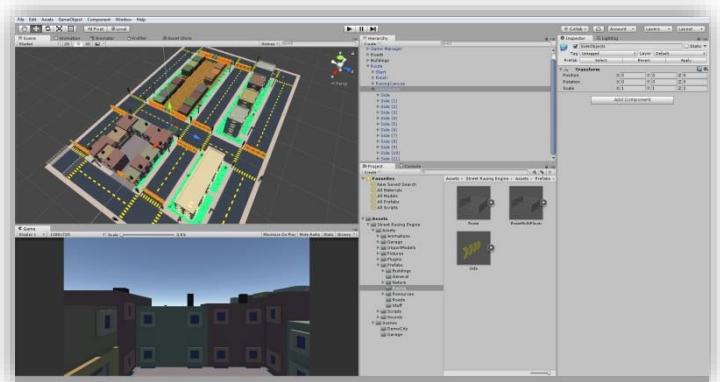
6. In the project find “Side” gameobject and attach it to “SideObjects” folder in “Route” gameobject.



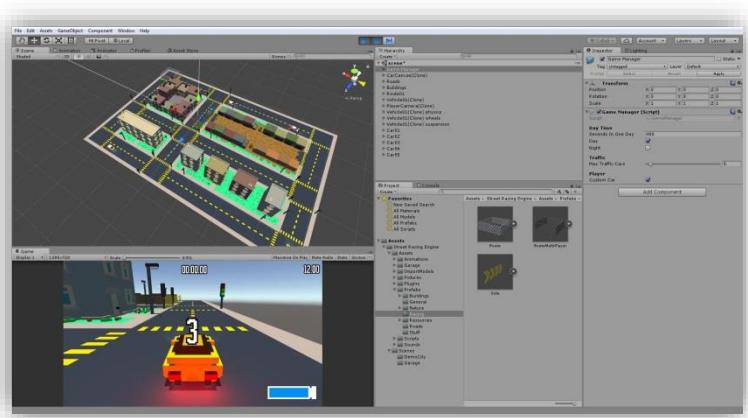
7. Move “Side” gameobject onto the road where you don’t want that player could go.



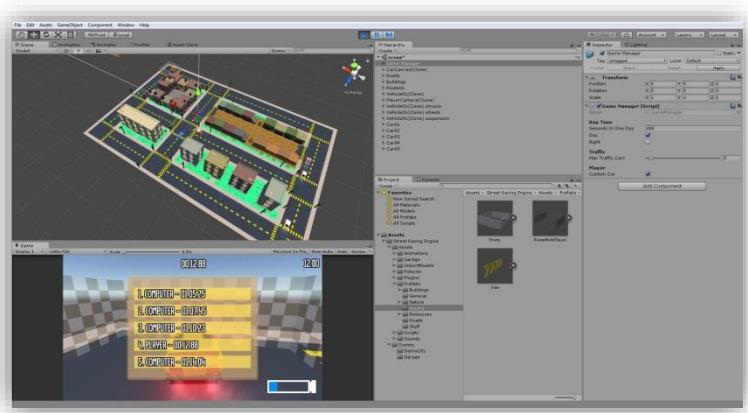
8. Duplicate and place “Side” gameobjects over the city and make a small track.



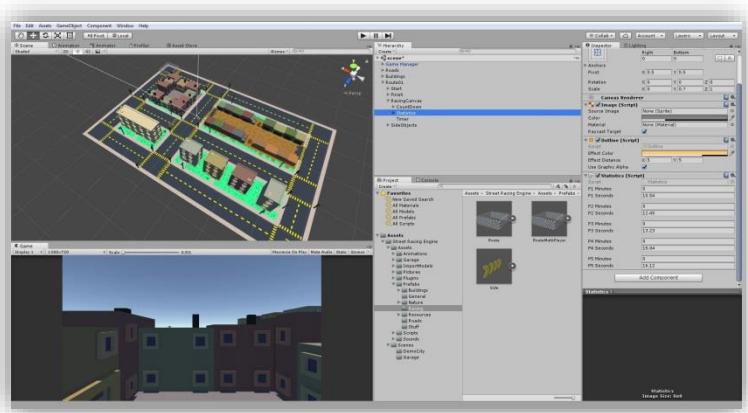
9. Hit play. Drive through all track and reach finish.



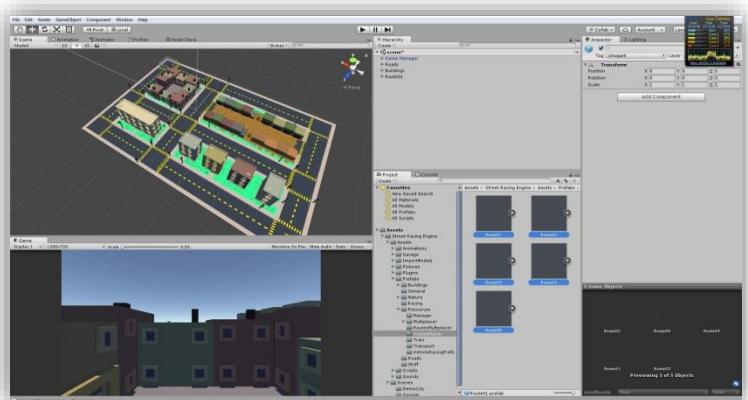
10. The statistics table will pop up write your time on the note. Sometimes, when minutes are different, time will bug out and it won't show the right place. In order to fix this problem try to use specific minute on the statistics.



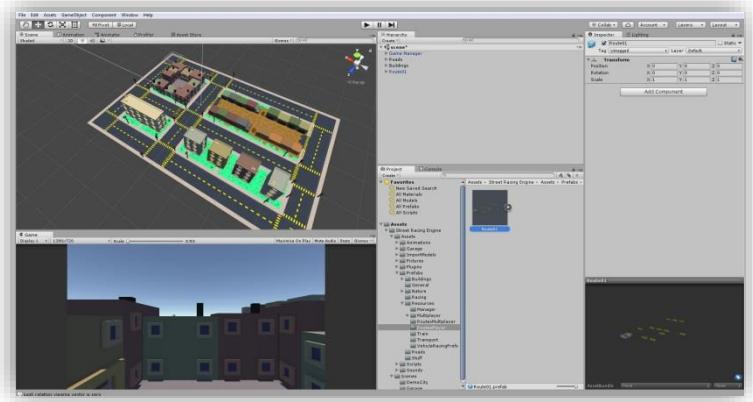
11. Go to Route>RacingCanvas>Statistics and change all times in the inspector to similar time which you have written on your note.



12. In the project go to Assets>Prefabs>RoutesPlayer and delete all default prefabs.



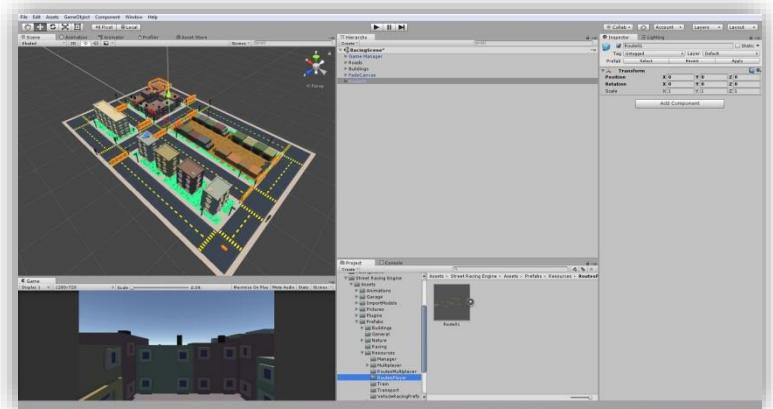
13. Change “Route” gameobject name to “Route01” and drag it to “RoutesPlayer” folder to make a prefab.



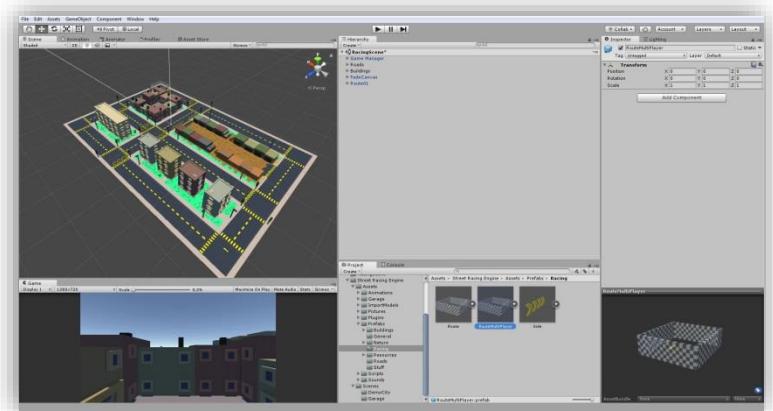
15. TWO PLAYER RACING ROUTE

1. Go to

Assets>Prefabs>resources>RoutesPlayer
and add “Route01” gameobject to
hierarchy.



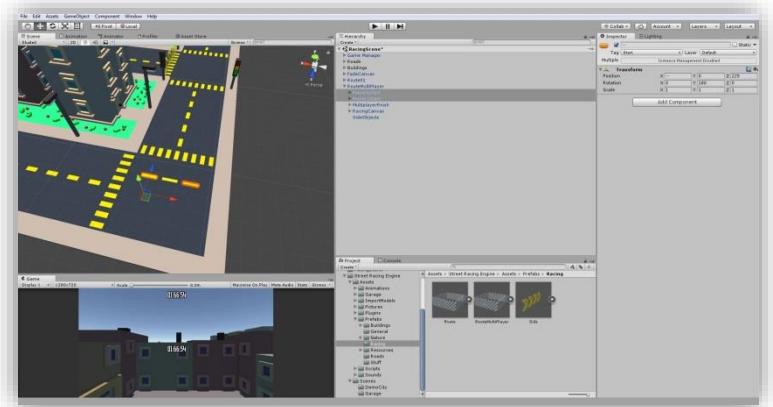
2. Go to Assets>Prefabs>Racing. Find
“RouteMultiplayer” gameobject and
attach it to hierarchy.



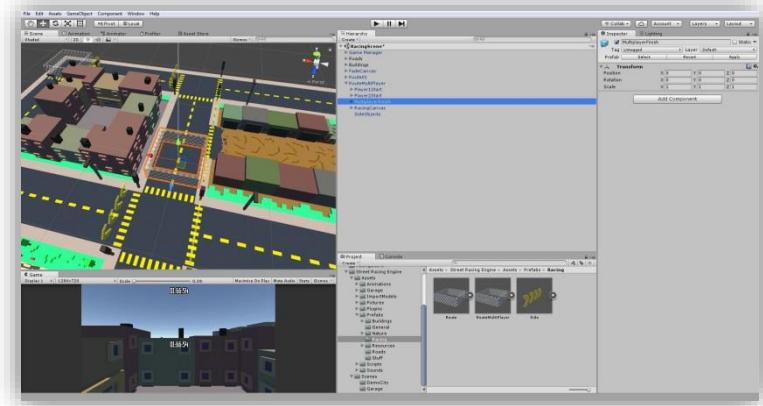
3. Find “Player1Start” and “Player2Start” in
the “RouteMultiplayer” gameobject.



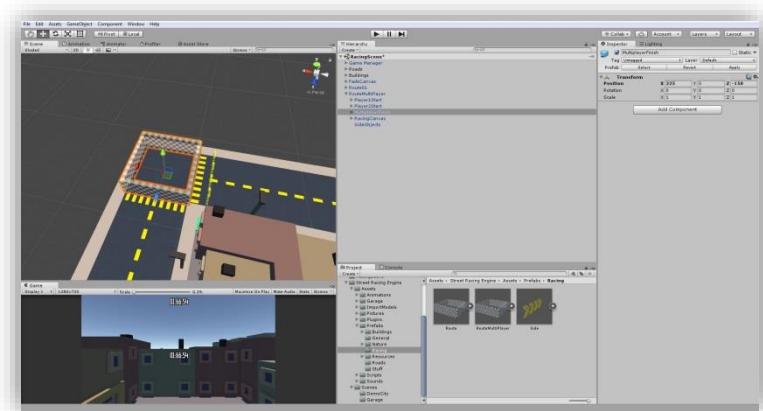
4. Move “Player1Start” and “Player2Start” to
the place where “Route01” start
gameobject is.



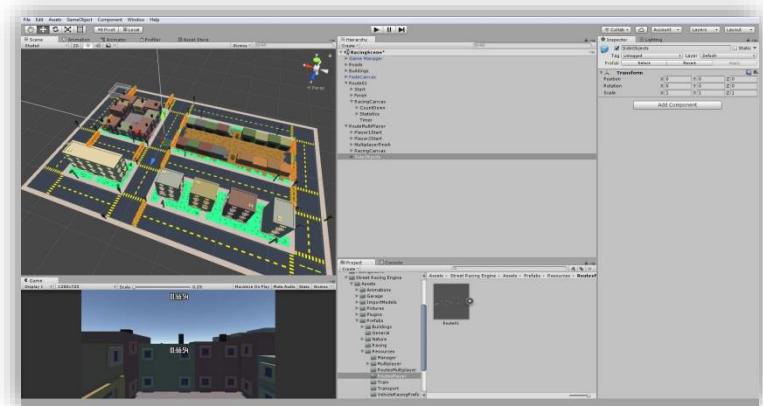
5. Find “MultiplayerFinish” in the “RouteMultiplayer” gameobject.



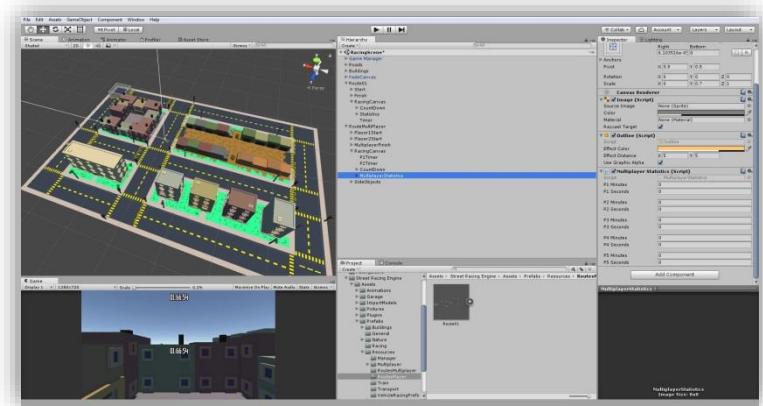
6. Move “MultiplayerFinish” to the place where “Route01” finish gameobject is.



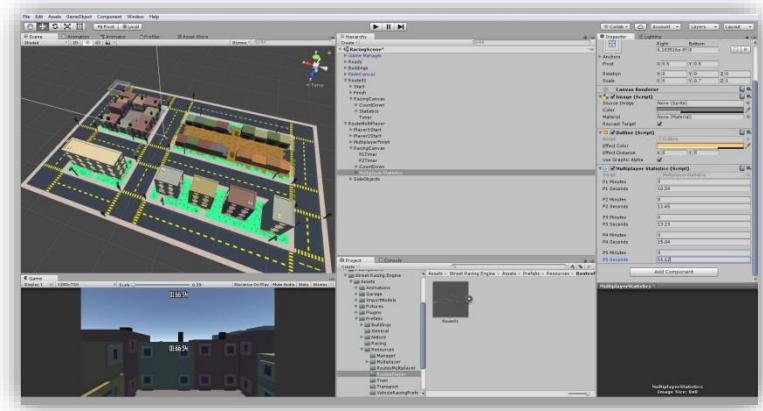
7. Move “SideObjects” folder from “Route01” to “RouteMultiplayer”.



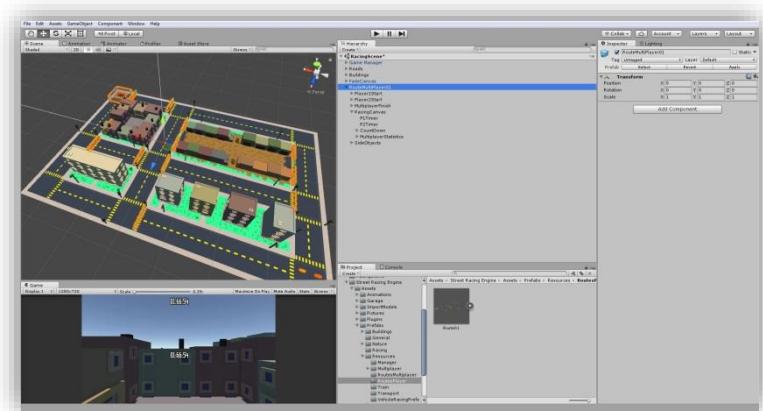
8. Go to “RouteMultiPlayer” and find in “RacingCanvas” gameobject “MultiplayerStatistics”.



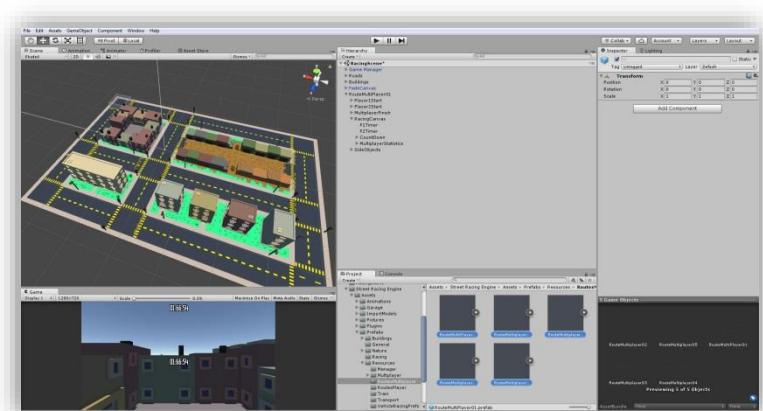
9. Copy statistics from “Statistics” gameobject to “MultiplayerStatistics”.



10. Delete “Route01” gameobject.

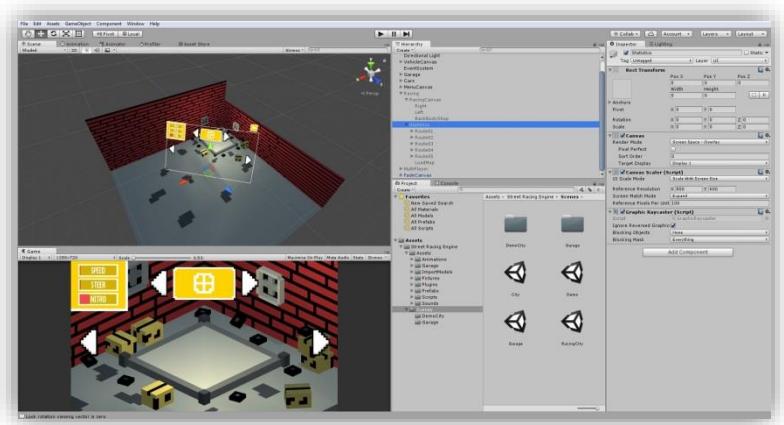


11. Go to Assets>Prefabs>Resources>RoutesMultiPlayer and delete all default prefabs from folder. Change “RoutesMultiplayer” name to “RoutesMultiplayer01” and add it to the project RoutesMultiplayer folder to create prefab and. Delete gameobject from hierarchy.

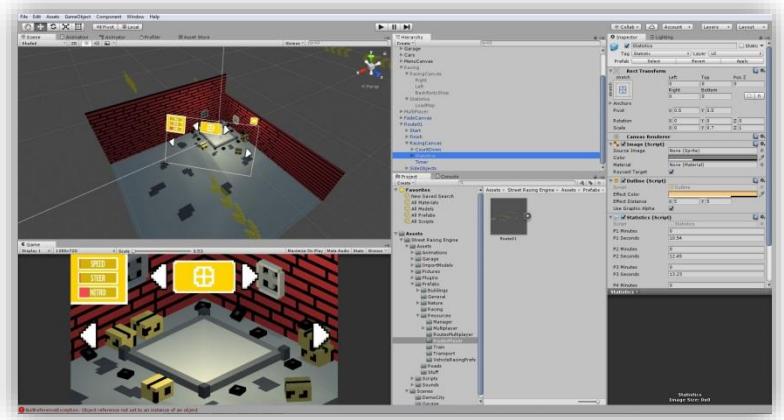


16. GARAGE RACING TRACKS

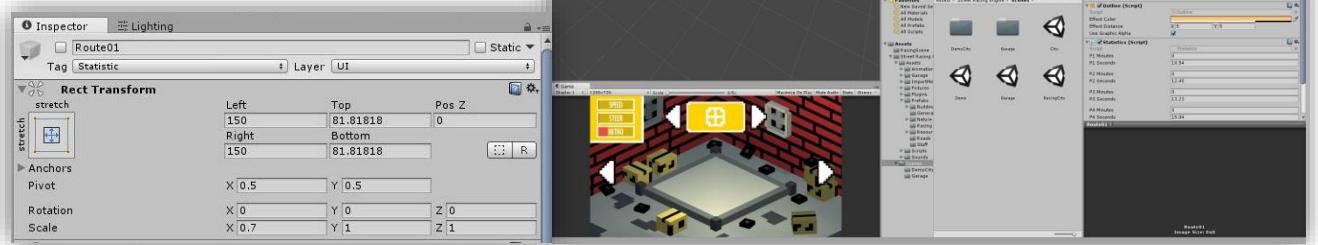
1. Open “Garage” scene and go to Racing>Statistics and delete all default Route gameobjects.



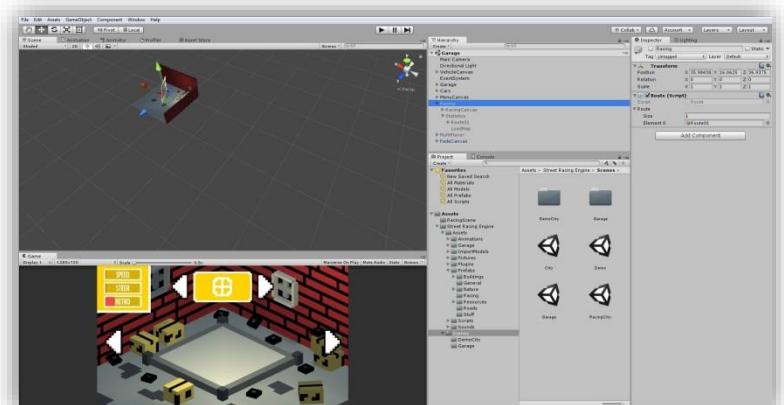
2. Go to Prefabs>Resources>RoutesPlayer and attach “Route01” gameobject to hierarchy. Find statistics folder in “Route01” gameobject.



3. Move statistics gameobject to Racing>Statistics folder and rename it to “Route01”. Then change all settings in Rect Transform as shown in the picture.



4. Go to Racing gameobject and add “Route01” gameobject to “Route” script.



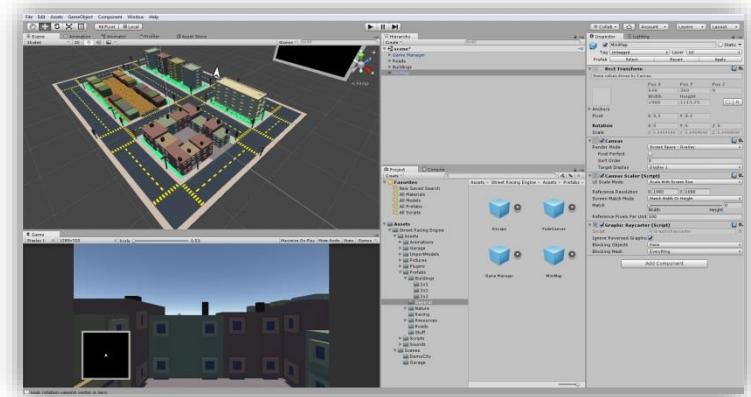
5. Hit play and try it!

17. MINIMAP

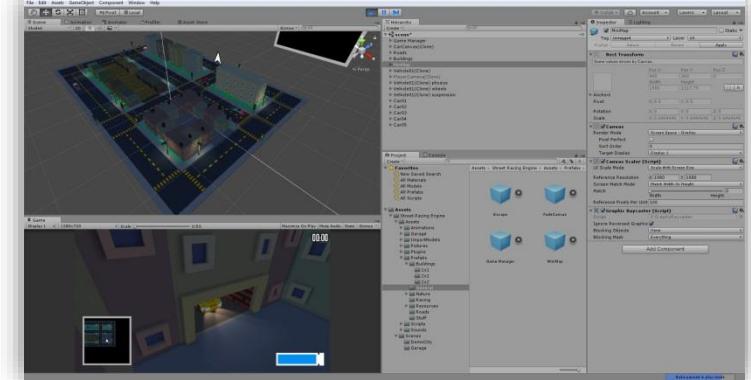
1. Go to Assets>Prefabs>General and find Minimap prefab.



2. Attach Minimap prefab to Hierarchy.



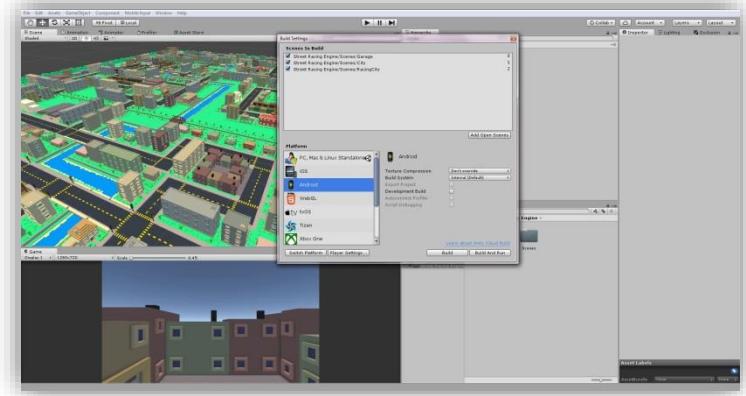
3. Hit play and enjoy your minimap! Because of small amount of buildings and roads it will be more glitchy. In order to fix this problems just add plane under the city.



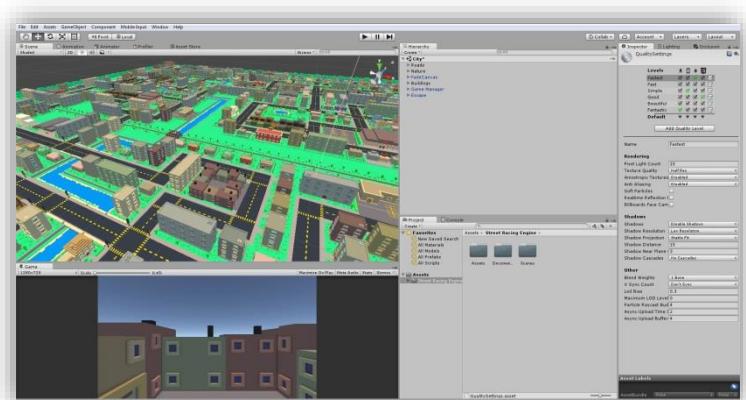
18. MOBILE VERSION

When your project are ready, you can create your own mobile version of the game.

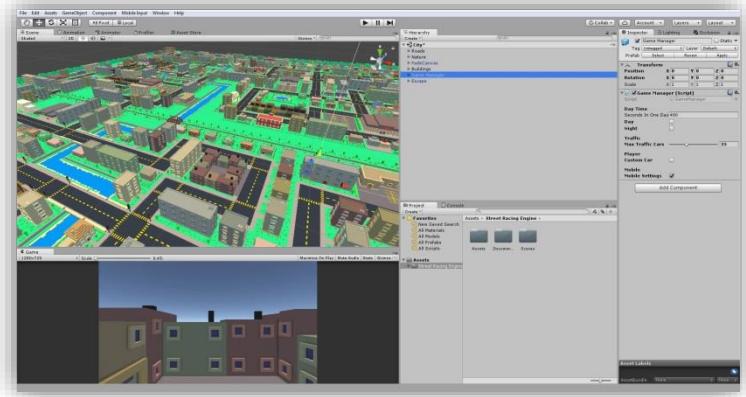
1. Go to the File>Build Settings. Choose Android or iOS and press Switch Platform.



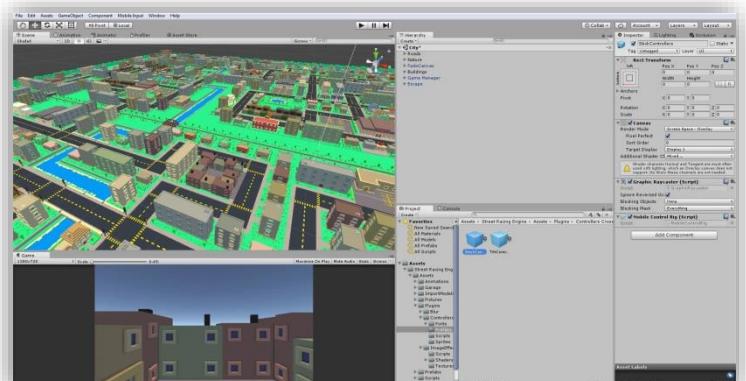
2. Go to the Edit>Project Settings>Quality and change default setting for Android or iOS to fastest(You can select it on your own, but the fastest level will work on all phones perfectly).



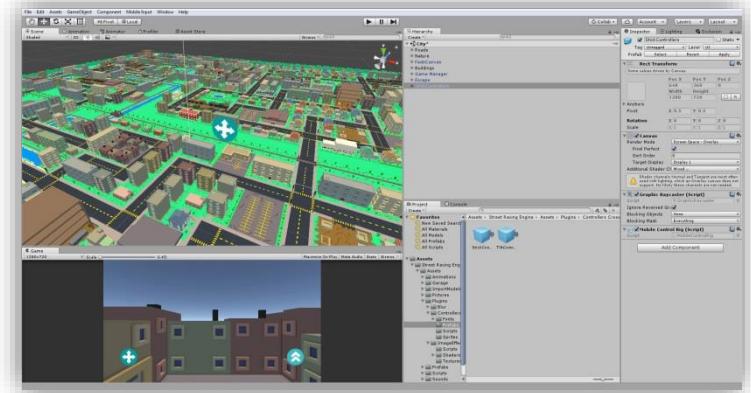
3. Go to Game Manager and check Mobile settings or choose manually what you would like to optimize. Then go to Mobile Input and check Enable.



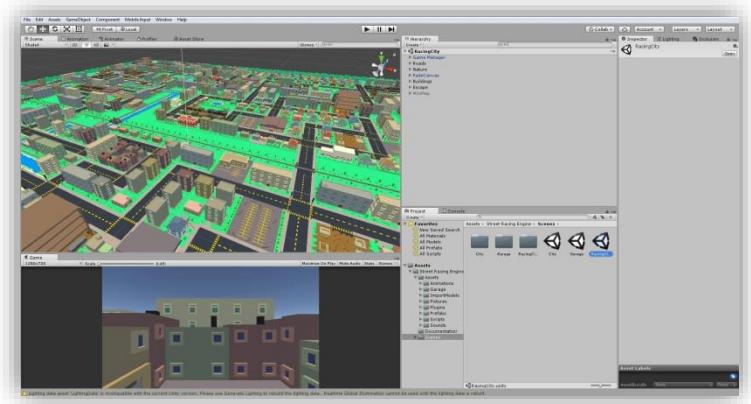
4. Go to Plugins>Controllers CrossPlatformInput>Prefabs and choose controller.



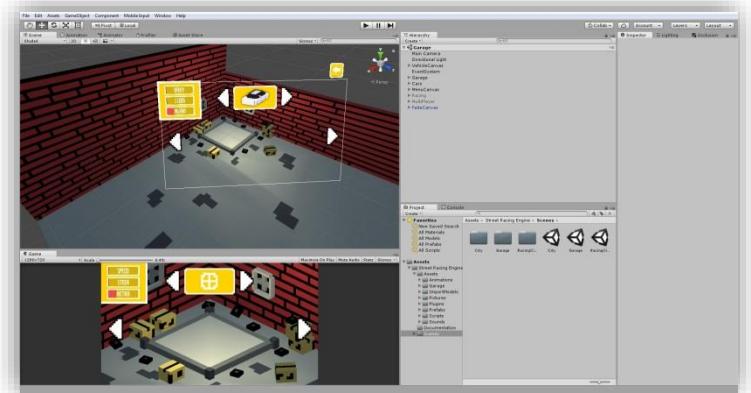
5. Add controller to the scene.



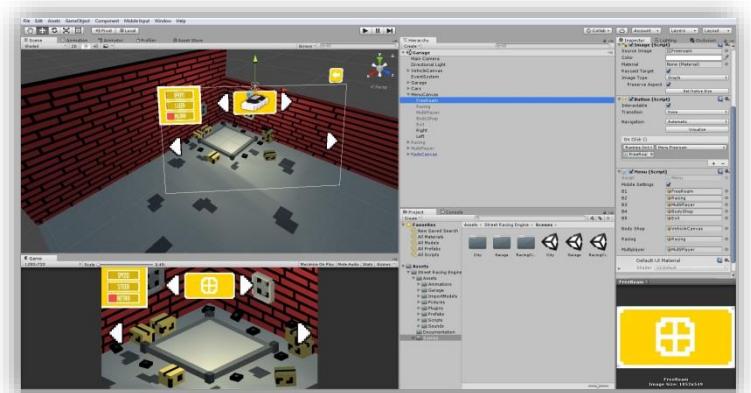
6. Then go to the RacingCity scene and repeat all steps.



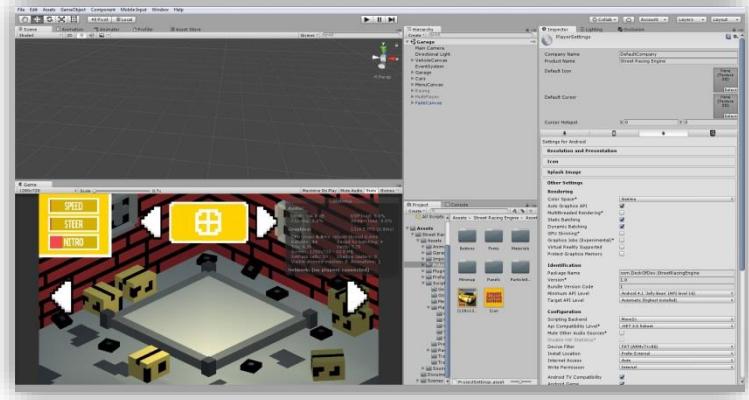
7. Open Garage scene.



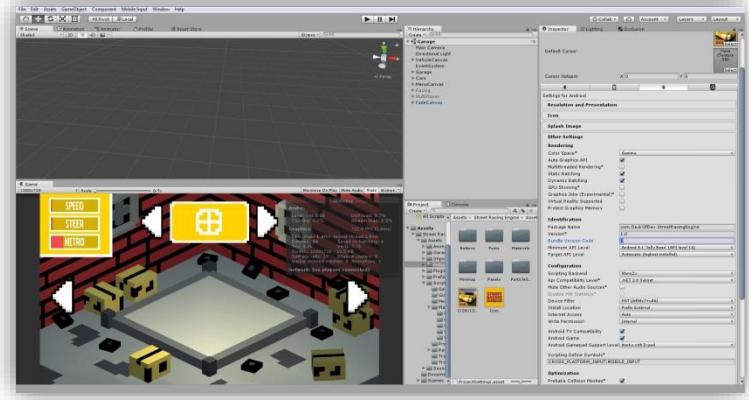
8. Go to MenuCanvas>FreeRoam and check Mobile Settings.



9. Then go to Edit>Project Settings>Player and add Default Icon. We will use default “SRE” icon.

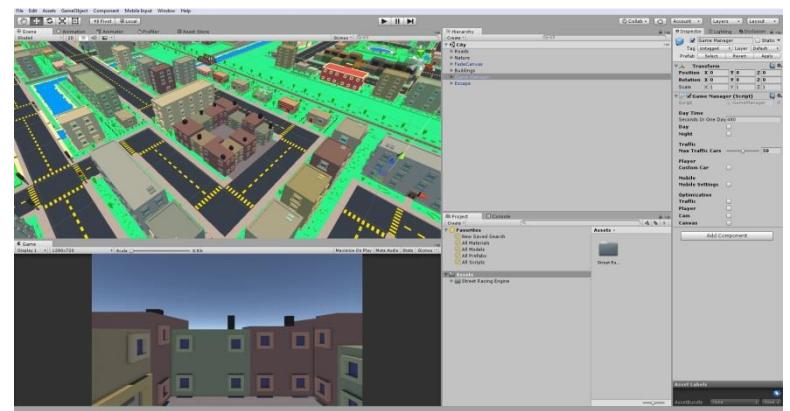


10. Identification settings will appear. Change all the preferences that your project will have.

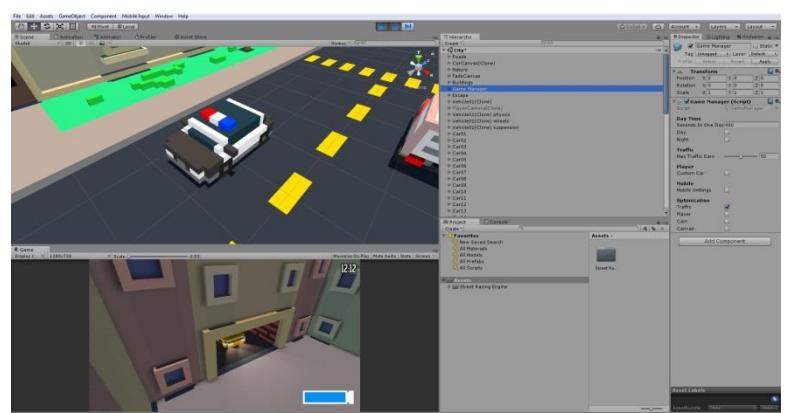


19. OPTIMIZATION SETTINGS

1. Go to the Game Manager gameobject.



2. To optimize traffic check traffic optimization bool. It will reduce and optimize traffic models by turning off lights and particles.



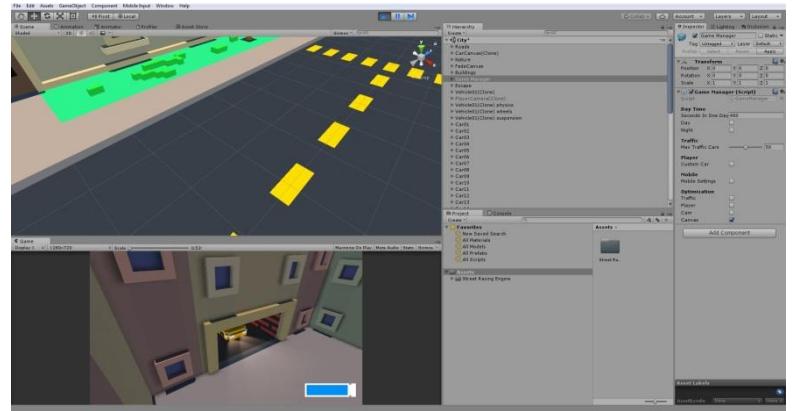
3. To optimize player model check player bool. It will reduce lights and other particles that uses a lot of performance.



4. To optimize camera check cam bool. It will disable Image effects and motion blur. Also, it will reduce draw distance. It drastically helps for low-specs devices and mobile phones.

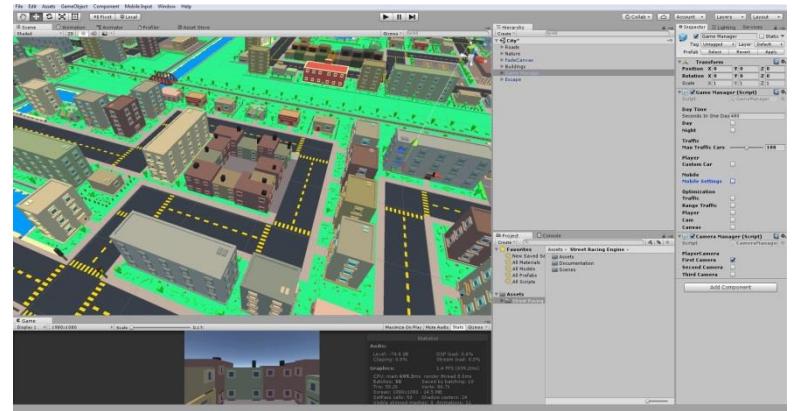


- To optimize canvas check canvas bool. It will disable canvas which won't have a lot of impact with game

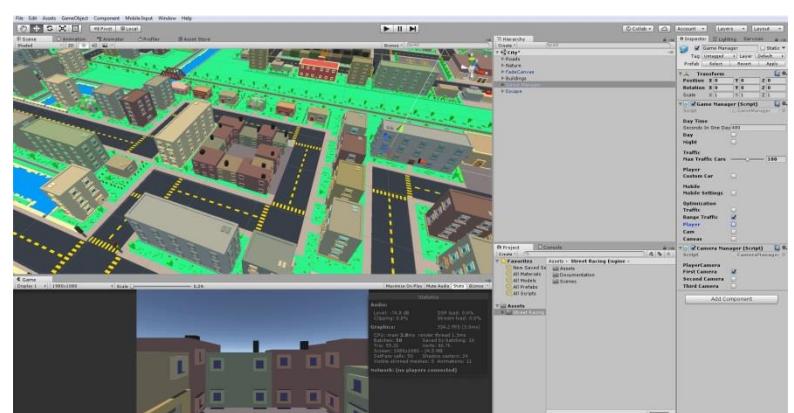


- By pressing all these buttons the performance of the asset will drastically increase and the project will work on any low-spec devices and mobile phones.

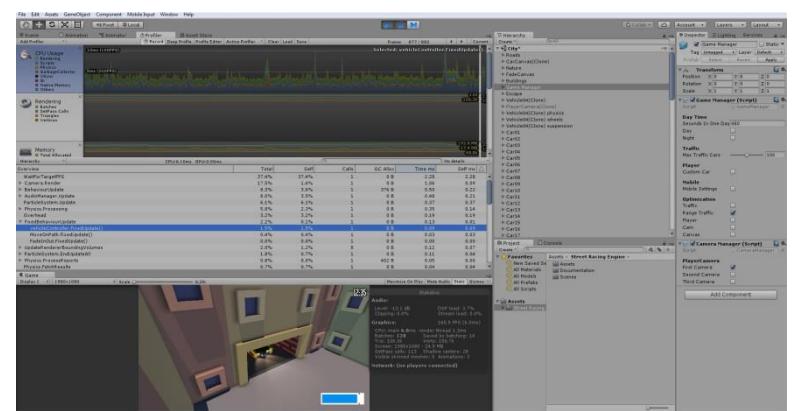
- To optimize traffic go to Game Manager.



- Select "Range Traffic" bool and start game.

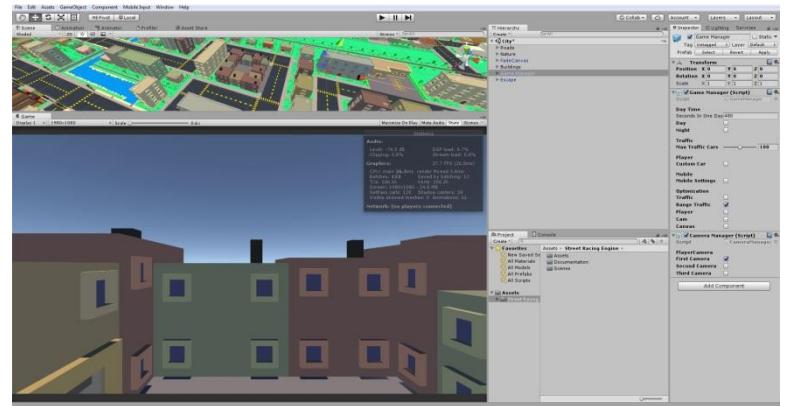


- Way better performance, less traffic is active which helps to same memory space.

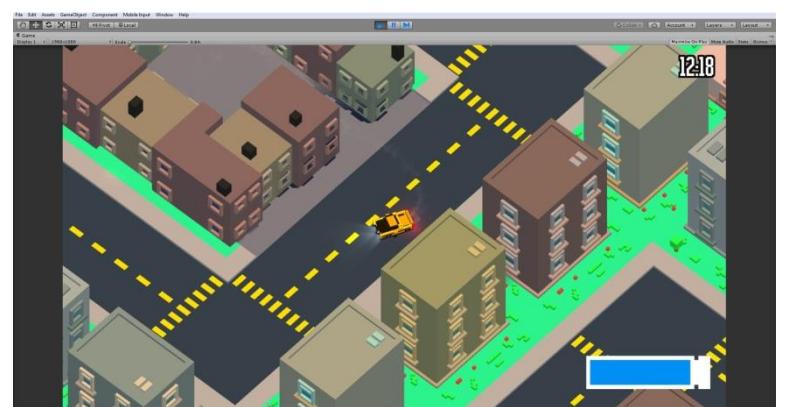
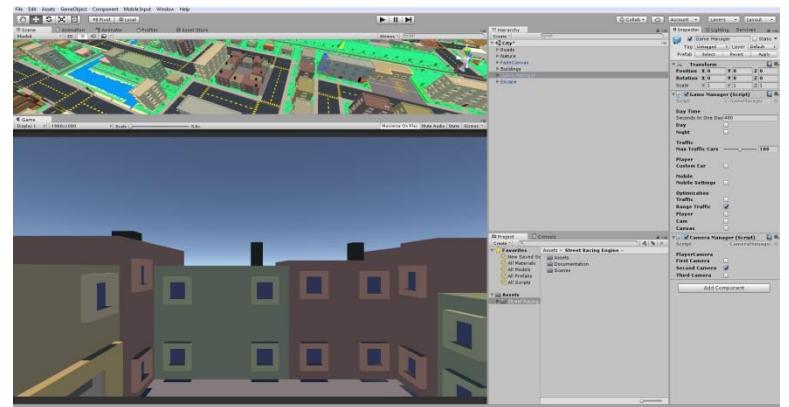


20. CAMERA MODES

1. Go to Game Manager and select 'First Camera' bool.



2. Select 'Second Camera' bool.



3. Select 'Third Camera' bool.

