Computer Graphics Lab 09-

Unity Basics - part 1

# Reference:

1. <https://www.youtube.com/playlist?list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE> (arabic),
2. <https://www.youtube.com/playlist?list=PLGmYIROty-5bpzKQNK3mRMi4pmh_LinV4> very good but some parts are old) ,

# Tools

1. **Unity 3d 2018+ (if 2020 is available it would be very good) , to learn more about how to install unity :**
   1. **For 64 bits devices:** [**https://youtu.be/Y7zjEQrJVzY**](https://youtu.be/Y7zjEQrJVzY)
   2. **For 32bits devices (old version but still working):** [**https://www.youtube.com/watch?v=3NQVjeWDd4o&list=PLhPa7T8XPi0I7XkxrTEYyyU\_YR1sePyTE&index=2**](https://www.youtube.com/watch?v=3NQVjeWDd4o&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=2)
2. **Visual studio community edition 2019 with unity tools: to learn more about how to integrate it with unity please check this video:** [**https://www.youtube.com/watch?v=TpnmTwkNpNU**](https://www.youtube.com/watch?v=TpnmTwkNpNU)
3. Note for linux users: unity is available also for linux ubuntu users, however you can install Monodevelop editor instead of visual studio community edition

# Labs

| **Lab ID** | 9-1 |
| --- | --- |
| **Goal** | Project window in unity |
| **Steps** | <https://www.youtube.com/watch?v=fvA_8y6pUnk&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=4> |

| **Lab ID** | 9-2 |
| --- | --- |
| **Goal** | Default GUI |
| **Steps** | <https://www.youtube.com/watch?v=N6lFTjpVdF4&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=5> |

| **Lab ID** | 9-3 |
| --- | --- |
| **Goal** | Game Objects |
| **Steps** | <https://www.youtube.com/watch?v=-jKs9HzcHTo&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=6> |

| **Lab ID** | 9-4 |
| --- | --- |
| **Goal** | Scene navigation |
| **Steps** | <https://www.youtube.com/watch?v=AzYMc7BCb8M&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=7> |

| **Lab ID** | 9-5 |
| --- | --- |
| **Goal** | Lights |
| **Steps** | <https://www.youtube.com/watch?v=CaXMmSG5gYw&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=9> |

| **Lab ID** | 9-6 |
| --- | --- |
| **Goal** | Textures and materials |
| **Steps** | <https://www.youtube.com/watch?v=JtZFtyj7LR0&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=12> |

| **Lab ID** | 9-7 |
| --- | --- |
| **Goal** | Physics and rigid body |
| **Steps** | <https://www.youtube.com/watch?v=0NbGe9CYtHw&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=14>  (note: there is a package download on the video description)  <https://www.youtube.com/watch?v=IVRwDurpfUI&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=15> |

| **Lab ID** | 9-8 |
| --- | --- |
| **Goal** | Audio |
| **Steps** | <https://www.youtube.com/watch?v=Y8V70eDYLr0&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=16> |

| **Lab ID** | 9-9 |
| --- | --- |
| **Goal** | Sound effects |
| **Steps** | <https://www.youtube.com/watch?v=Uc9Q9Ivpw_o&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=17>  (note : the video uses monodevelop , but the same code can be written in visual studio community edition 2019 which is now the main editor for unity  <https://www.youtube.com/watch?v=1EMM_3ec5J4&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=19> |

| **Lab ID** | 9-10 |
| --- | --- |
| **Goal** | Movement script |
| **Steps** | <https://www.youtube.com/watch?v=7ml06xFw56Q&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=21> |

| **Lab ID** | 9-11 |
| --- | --- |
| **Goal** | Movement speed (continue previous lab 9-10) |
| **Steps** | <https://www.youtube.com/watch?v=vkV_INFMuMw&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=22> |

| **Lab ID** | 9-12 |
| --- | --- |
| **Goal** | Using GetAxis |
| **Steps** | <https://www.youtube.com/watch?v=QgPj1JX-mFA&list=PLhPa7T8XPi0I7XkxrTEYyyU_YR1sePyTE&index=24> |