# GameObjects in Unity

## In Normal Programming

```
public class Main: Monobehaviour(){

    void Start(){

        Human newHuman = new Human();

        newHuman.TakeDamage();

    }
}
```

## In Unity Programming

```
public class Main: Monobehaviour(){

    public Human newHuman;

    void Start(){

        newHuman.TakeDamage();

    }
}
```

# Creating GameObjects in Unity

## In Normal Programming

```
public class Main: Monobehaviour(){

    void Start(){

        Human newHuman = new Human();

        newHuman.TakeDamage();
    }
```

## In Unity Programming

```
public class Main: Monobehaviour(){

    public Human newHuman;

    void Start(){

        Human human1 = Instantiate(newHuman)

        newHuman.TakeDamage();
        human1.TakeDamage();

    }
```

# *Start and Update*

```
public class Main: Monobehaviour(){

    void Start(){


    }


    void Update(){


    }



}
```

runs once before the Update method

runs in every frame after the start method(Game Loop)

# *Delta Time*

```
void Update(){

    transform.position.x = transform.position.x + 1;

}
```

← the object will move ~60 units to the right in 1 second.

```
void Update(){

    transform.position.x = transform.position.x + (1 * Time.DeltaTime);

}
```

← the object will move 1 unit in 1 second.

time in seconds between each frame

# Get Component

Hierarchy
  -GameObject 1
  -GameObject 2
  -GameObject 3
  -GameObject 4
  ......

GameObject 1
  -component 1
  -component 2
  -component 3
  - Script Component
  .....

Camera(GameObject)
  -Camera(Component)
  - Main(Script Component)

```
public class Main: Monobehaviour(){

    Camera camera;

    void Start(){

        camera = GetComponent<Camera>();

    }
```