Flowchart 1 (Inicio)

```
Inicio
  ↓
Iniciar juego → -Crear enemigos
                      ↓
                 toma torre → -se descuenta monedas
                                -se crea la torre
                                      ↓
                 torre con vida → torre detecta enemigo
                      ↓                    ↓
                destruir torre      torre ataca ataca enemigos
                                           ↓
                                     Mata todos enemigos
                                           ↓
                                     Gana Partida
```

Flowchart 2 (Enemigos)

```
Enemigos
   ↓
con vida → detecta torre → Ataca torre
   ↓            ↓
Muere enemigo  *caminar adelante
                  ↓
               llega meta → Pierde Partida
```

Class Diagrams

STower
:ScriptableObject

+TowerName:string
+ Life:float
+ Damage: float
+ Cadence : float
+MaxRangeShoot: float
+SuncoinsCost:int
+CardImage: Sprite
+TowerPrefab:GameObject

<<Abstract>>
GeneralTower
:MonoBehaviour

+ Life:float
+Damage: float
+Cadence : float
+MaxRange: float
- canshoot:bool

+ Shoot();
+Die()
#Begin(STower)
#CanShoot
#GetDamaga(float)
-ShootWithCadence(float):IEnumerator

TowerRocket

-Tower:STower
-Cannon:Transform
-layer:LayerMask
-EnemyTarget:GameObject
-hit:RaycastHit

Shoot():
#Die()
-start
-update

TowerLaser

-Tower:STower
-laserhot:Transform
-layer:LayerMask
-line:LineRenderer
-hit:RaycastHit

Shoot():
#Die()
-start
-update
-OffLaser

TowerEnergy

-Tower:STower
- shop: ShopTowers
-firstime:bool

#Shoot():
#Die()
-start
-LateUpdate

SEnemy
:ScriptableObject

+EnemyName:string
+ Life:float
+ Damage: float
+Cadence : float
+Speed: float
+EnemyPrefab:GameObject

EnemyGenerator

<<Abstract>>
Enemy
:MonoBehaviour

+ Life:float
+Damage: float
+Cadence : float
+Speed: float
+animator:Animator
+canWalk;bool
+die:bool
+towerTarget:GeneralTower
-canAttack:bool

#Attack():
#Die()
#Begin(SEnemy)
#CanAttack
#GetDamaga(float)
-Attacktime(float):IEnumerator
#walikng

EnemyHat

-enemy:SEnemy
-hat:GameObject

#Attack
#Die
#GetDamage(float)
-OnTriggerStay(Collider)
-OnTriggerEnter(Collider)
-start
-Update

EnemyMaleSimple

-enemy:SEnemy

#Attack
#Die
-OnTriggerStay(Collider)
-OnTriggerEnter(Collider)
-start
-Update

EnemyCraw

-enemy:SEnemy
-enemyCol:CapsuleCol

#Attack
#Die
-OnTriggerStay(Collider)
-OnTriggerEnter(Collider)
-start
-Update

ObjectPooling

+SharedInstance:ObjectPolling
+pooledObjects:GameObject[]
+objectToPool:GameObject
+amountToPool:int
-MisilParent

-Awake()
-Start()
+GetPooledObject():GameObject

Bullet

+speed:float
-targe:Transform
-damage:float
-layer:LayecMask
-hitCollider:Collider[]

+ GetTarget(Transform,float)
-start
-update
-HitTarget
-ExplosionDamage

ShopTowers

+PlayerSunCoins:int
+ Coins_UI:TMP_Text

-start
+Addsuncoins(int)
+Buytower(int)
+CanBuyTower(int):bool
+UpdateCoin()

<<IDragHandler,IBeginDragHandler,
IEndDragHandler>>
DragDrop

-maincamera:Camera
-canvas:GameObject
-tower:STower
-towerImage:Sprite
-imgObject:GameObject
-shop:ShopTowers
-hit:RaycastHit

+OnBeginDrag(PointerEventData eventData)
+OnDrag(PointerEventData eventData)
+OnEndDrag(PointerEventData eventData)

UICardManager

-towers:STower[]
-cardsHolder:Transform
-cardTemplate:GameObject

-start
-CreateUICards

UICard

+tower:STower
-towerPhoto:Image
-cost:TMP_Text

-Start

PlaceHolder

+stower:STower
+IsEmpty:bool
-tower:GameObejct

+CreateTower(STower)
+ShowPlaceHolder
-HidePlaceHolder

GirdGround

-YHolders:int
-XHolders:int
-margin:float
-xoffsetbar:float
-PlaceHolder:GameObject
-Barway:Gameobject
-zombitransform:Transform
-xoffset:float
-yoffset:float
-xoffsetscale:float
-yoffsetscael:float
-pivot:GameObject

-start
-CreateGrid