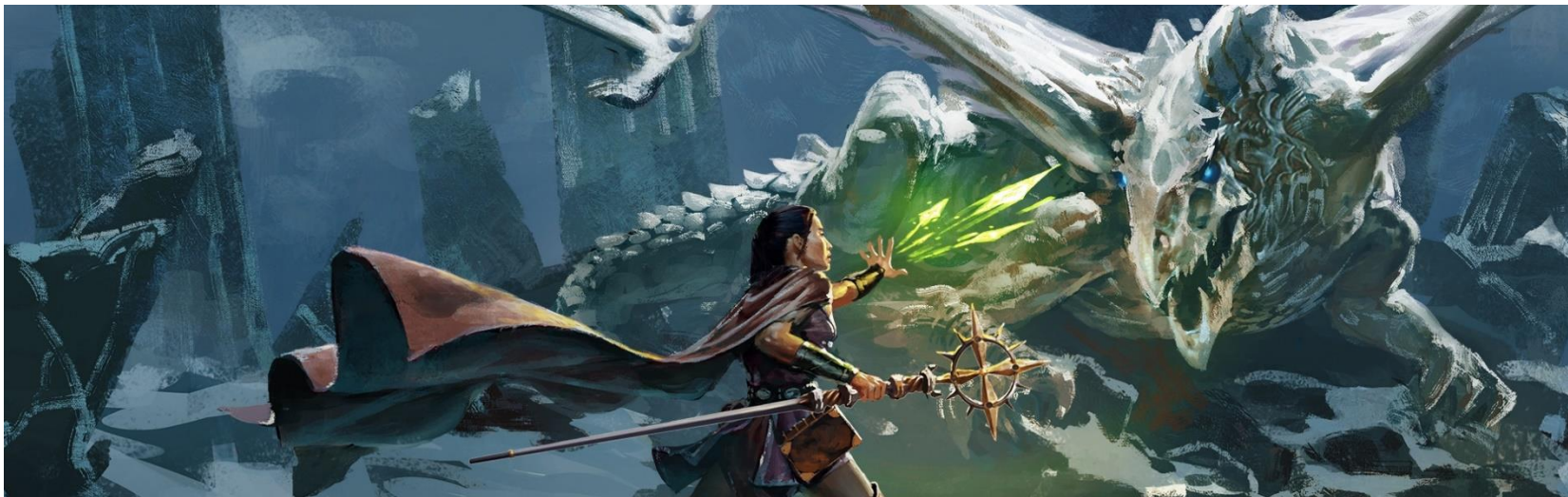


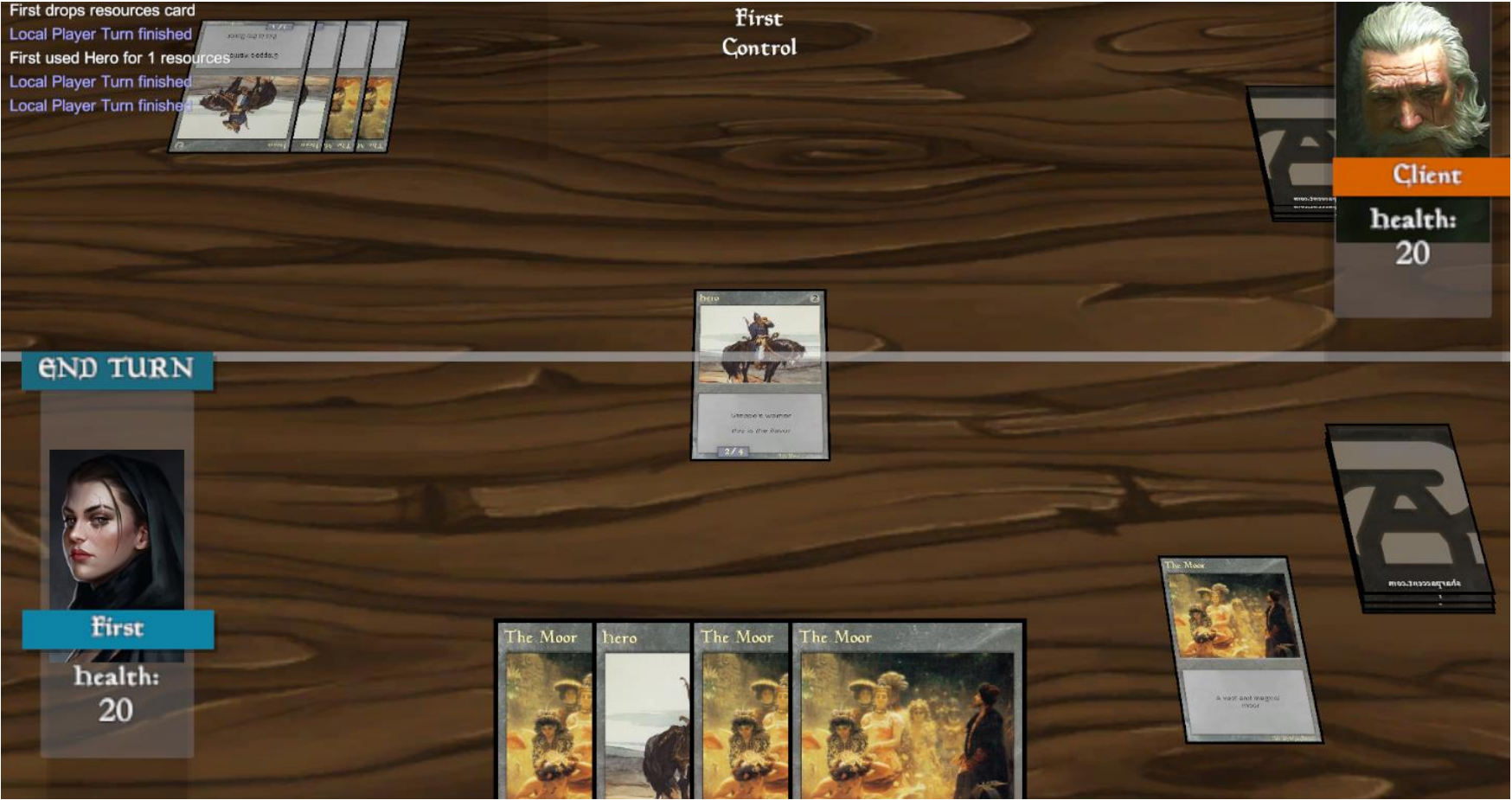


Battle Chess

Basement studio

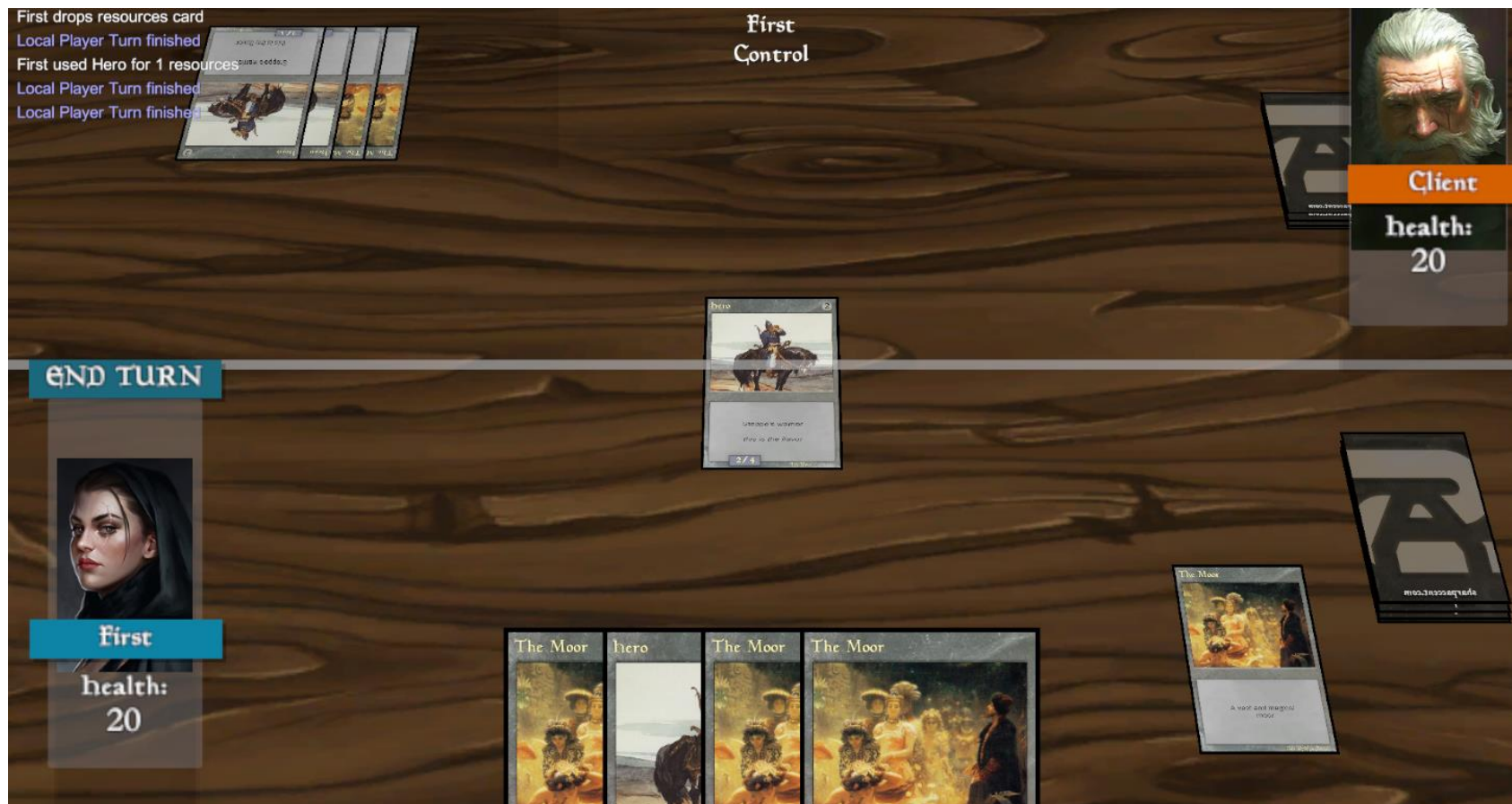
106703054 唐嘉偉

遊戲內容



遊戲內容－遊戲性

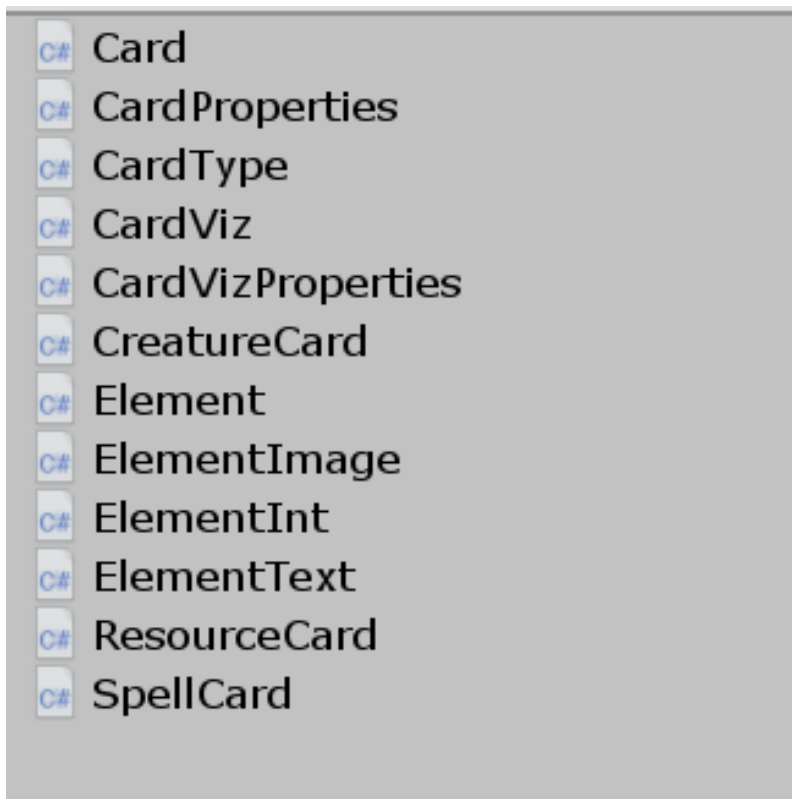
規則參考自爐石傳說，魔法風雲會



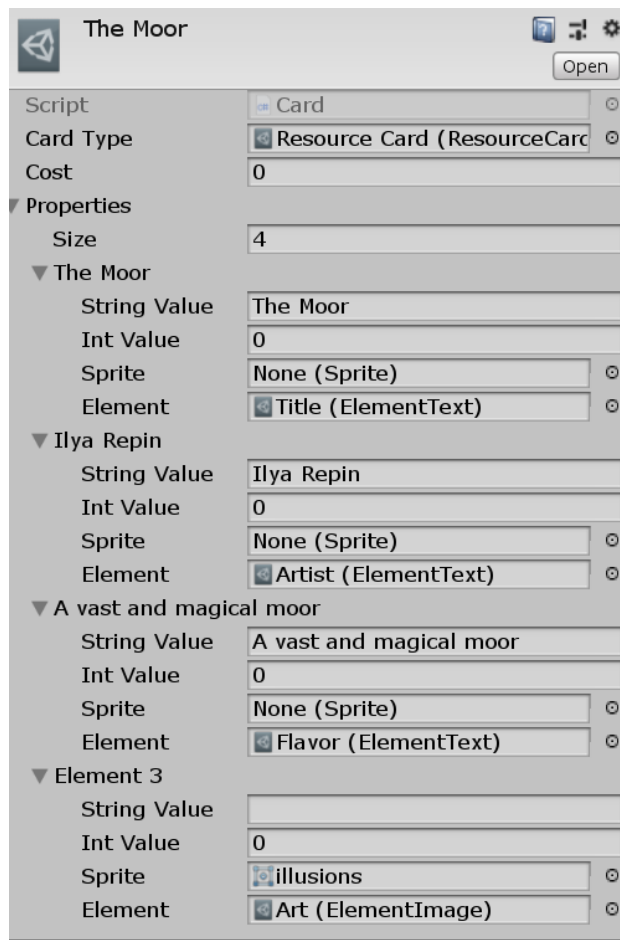
在多樣的卡牌下運用各種策略來戰鬥

遊戲內容－技術性

良好的OO，使得後續開發方便許多



每張卡牌根據欄位屬性有個別的class

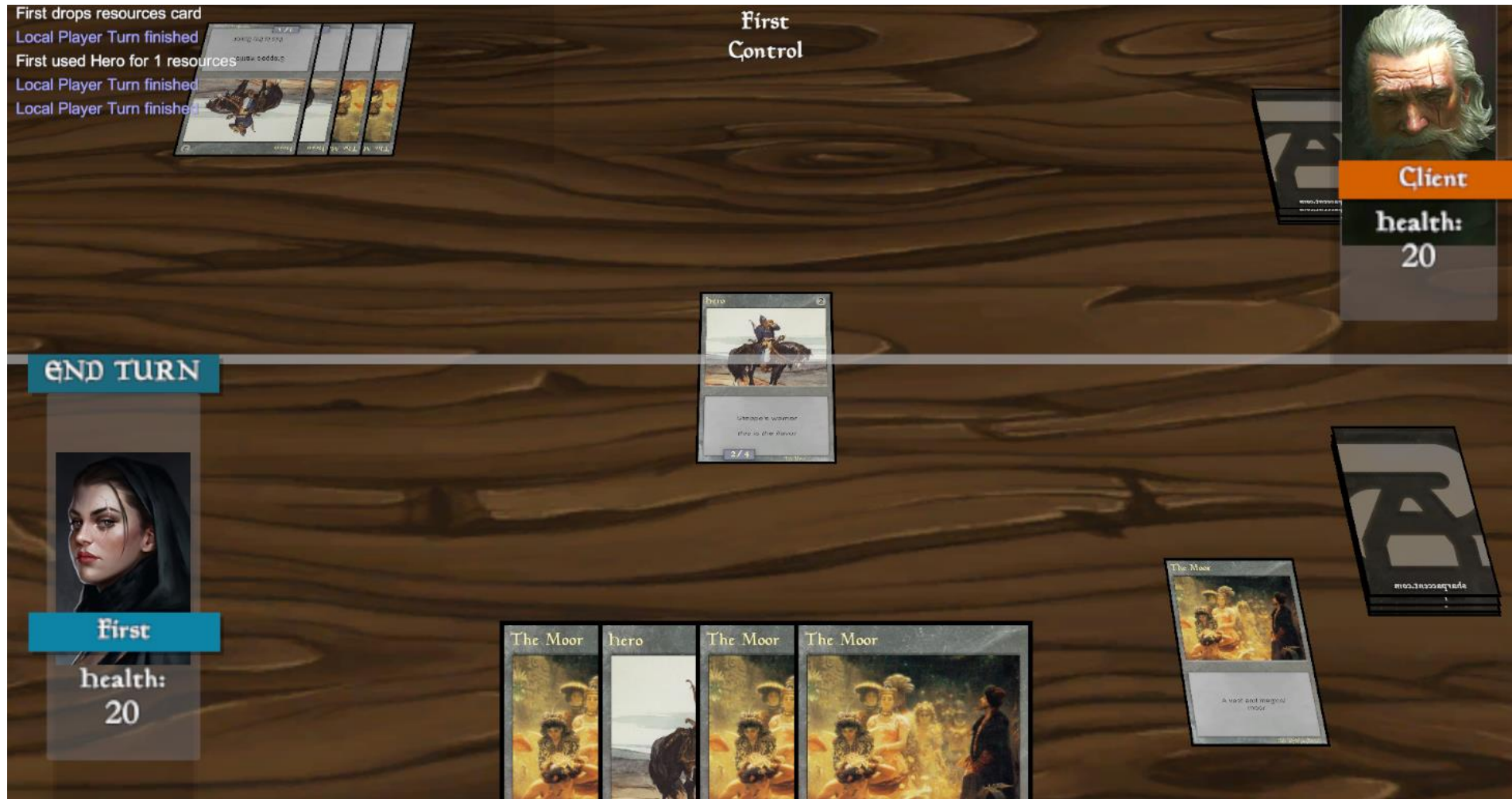


卡牌資料的修改變得更为容易，
當要新增一張卡牌時，只需創建
一variable，並修改資料即可



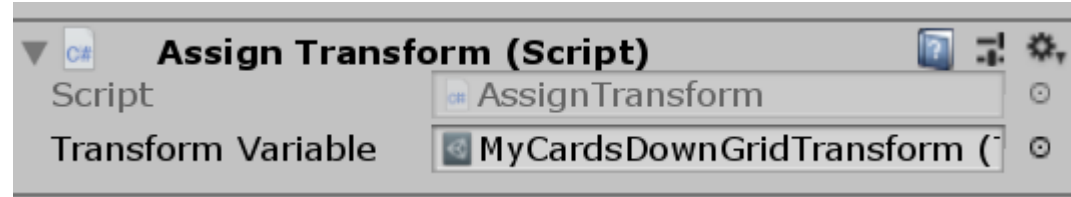
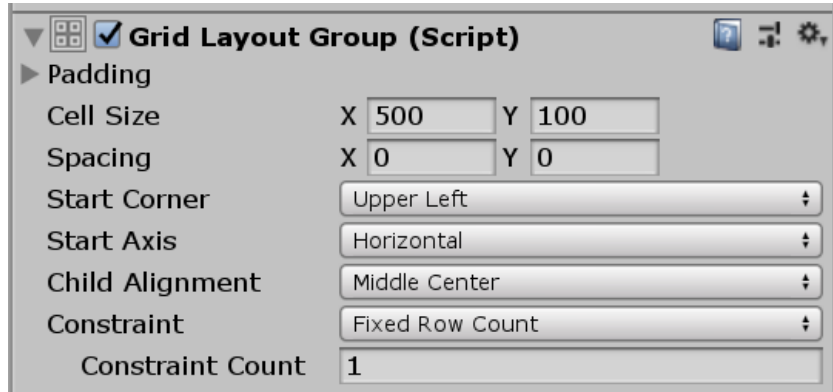
不只卡牌，其他遊戲內容也遵循良好的OO，例如手上卡牌的生成

遊戲內容－畫面效果



畫面較偏美式寫實RPG

實作細節－手頭卡牌



```
public void SetCardDown(CardInstance card)
{
    Settings.SetParentForCard(card.viz.gameObject.transform, downGrid.value.transform);
}
```

```
public static void SetParentForCard(Transform c, Transform p)
{
    c.SetParent(p);
    c.localPosition = Vector3.zero;
    c.localEulerAngles = Vector3.zero;
    c.localScale = Vector3.one;
}
```

實作細節－卡牌放置

```
public class CardInstance : MonoBehaviour, IClickable
{
    public PlayerHolder owner;
    public CardViz viz;
```

```
public List<CardInstance> handCards = new List<CardInstance>();
```

```
public void DropCard(CardInstance inst, bool registerEvent = true)
{
    if (handCards.Contains(inst))
        handCards.Remove(inst);

    cardsDown.Add(inst);
```

實作細節－卡牌放置

```
if (!mouseIsDown)
{
    GameManager gm = Settings.gameManager;

    List<RaycastResult> results = Settings.GetUIObjs();

    if (!isBlocking)
    {
        foreach (RaycastResult r in results)
        {
            GameElements.Area a = r.gameObject.GetComponentInParent<GameElements.Area>();
            if (a != null)
            {
                a.OnDrop();
                break;
            }
        }
    }
}
```

```
public override void Execute()
{
    if (card.value == null)
        return;

    Card c = card.value.viz.card;

    if (c.cardType == creatureType)
    {
        MultiplayerManager.singleton.PlayerWantsToUseCard(c.instId, GameManager.singleton.localPlayer.photonId, MultiplayerManager.CardOperation.dropCreatureCard);
    }
    else
    {
        if (c.cardType == resourceType)
        {
            MultiplayerManager.singleton.PlayerWantsToUseCard(c.instId, GameManager.singleton.localPlayer.photonId, MultiplayerManager.CardOperation.dropResourcesCard);
        }
    }
}
```


實作細節－卡牌互動

```
public override void OnStartPhase()
{
    if (!isInit)
    {
        forceExit = !isBattleValid.IsValid();
        Settings.gameManager.SetState((!forceExit) ? battlePhaseControl : null);
        Settings.gameManager.onPhaseChanged.Raise();
        isInit = true;
    }
}
```

```
void BattleResolveForPlayers()
{
    PlayerHolder player = Settings.gameManager.currentPlayer;
    PlayerHolder enemy = Settings.gameManager.GetEnemyOf(player);

    if (enemy.attackingCards.Count == 0)
    {
        Debug.Log("enemy.attackingCards.Count == 0");
        photonView.RPC("RPC_BattleResolveCallback", PhotonTargets.All, enemy.photonId);
        // photonView.RPC("RPC_PlayerEndPhase", PhotonTargets.All, player.photonId);
        return;
    }

    Dictionary<CardInstance, BlockInstance> blockDict = Settings.gameManager.GetBlockInstances();

    for (int i = 0; i < enemy.attackingCards.Count; i++)
    {
        CardInstance inst = enemy.attackingCards[i];
        Card c = inst.viz.card;
        CardProperties attack = c.GetProperty(dataHolder.attackElement);
    }
}
```

Demo

有利評斷遊戲的內容



Action.cs	GE_Logic.cs
Area.cs	HandCard.cs
AreaLogic.cs	IClickable.cs
BattlePhase.cs	MouseHoldWithCard.cs
BattlePhaseStartCheck.cs	MouseOverDetection.cs
BattleResolve.cs	MyCardDown.cs
BlockInstance.cs	MyCardsDownAreaLogic.cs
Card.cs	OnMouseClicked.cs
CardHolders.cs	OnSelectCard.cs
CardInstance.cs	Phase.cs
CardProperties.cs	PlayerAction.cs
CardType.cs	PlayerHolder.cs
CardVariable.cs	PlayerStatsUI.cs
CardViz.cs	ResetCurrentPlayerCardResources.cs
CardVizProperties.cs	ResetFlatFootedCards.cs
Condition.cs	ResourceCard.cs
ConsoleHook.cs	ResourceHolder.cs
ConsoleManager.cs	ResourcesManager.cs
ControlPhasePlayer.cs	SelectCardsToAttack.cs
CreatureCard.cs	Settings.cs
CurrentSelected.cs	SpellCard.cs
Element.cs	State.cs
ElementImage.cs	Turn.cs
ElementInt.cs	
ElementText.cs	
GameManager.cs	

大部分遊戲內容皆是以程式手刻出來，總共大約接近**2000**行程式碼

外部素材

卡牌外觀: <https://gatherer.wizards.com/pages/card/Details.aspx?multiverseid=132069>

人物頭像: <https://www.nexusmods.com/pillarsofeternity/mods/102>

背景: <https://www.gamedevmarket.net/asset/wood-planks-3-7784/>