



Tank Man Demo



Created by Ethan, Frank & Jacob





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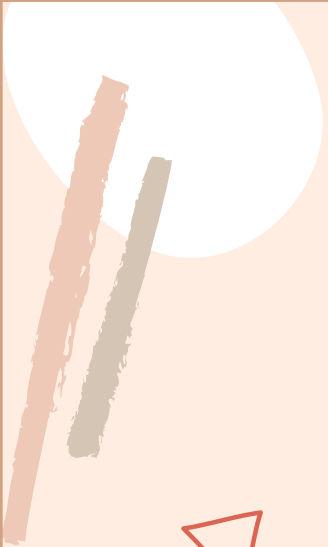
03

Game Design



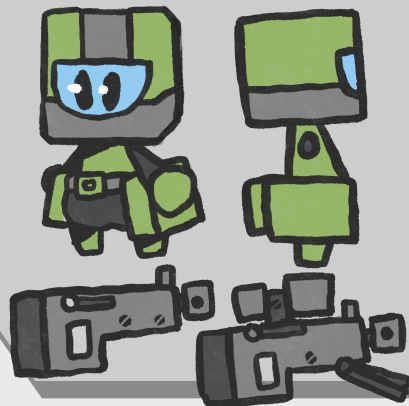
Character Design

Something cute, yet deadly...

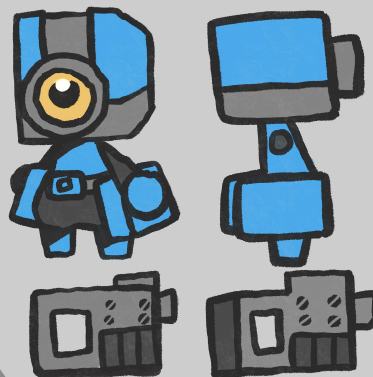




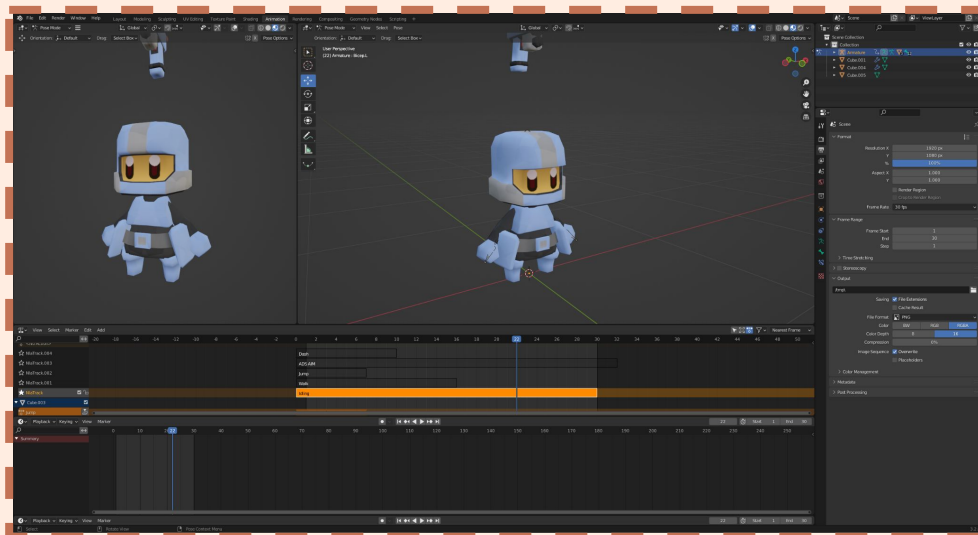
Armor: RECON



Armor: CQB



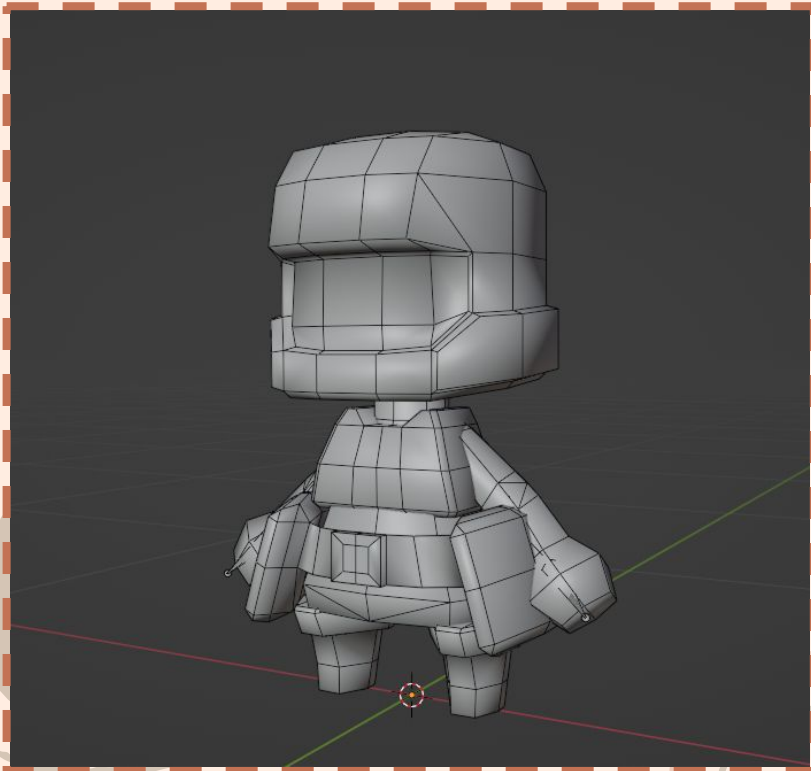
Concept Art for Player



Default player appearance



Design Aspects



01

Low Poly

Keeping the player under 1000 vertices

02

Conclusion

Keeping frame rates higher and able to play with low end hardware.

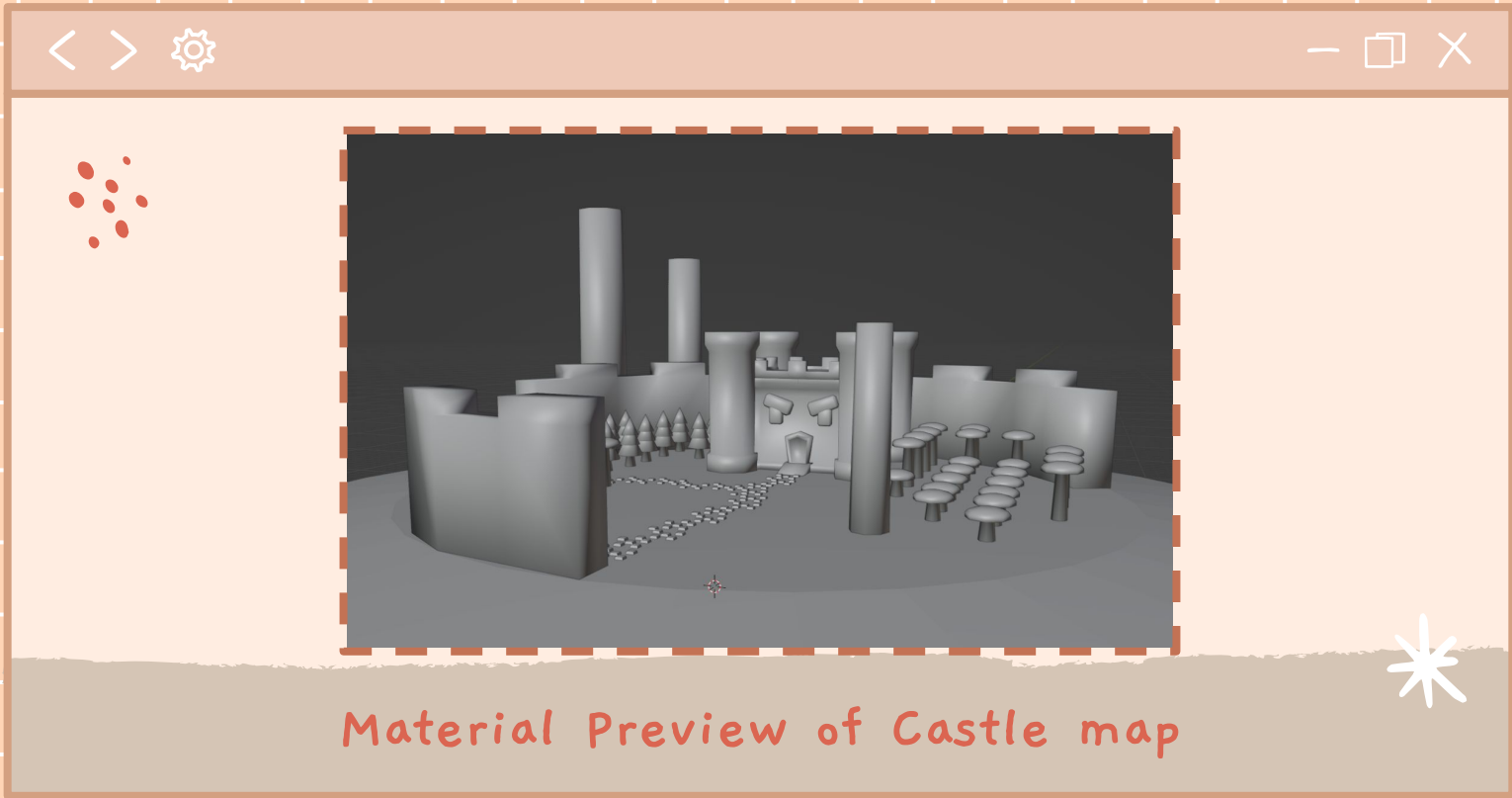


Level Design

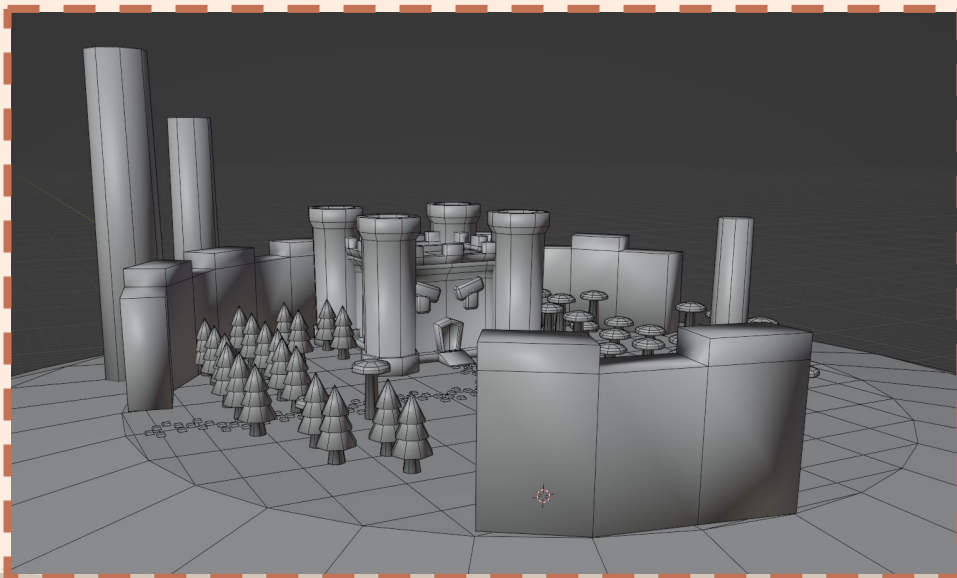
Cartoon inspired environments
with a lot of personality.



Concept art of Castle



Material Preview of Castle map



WireFrame Preview of Castle map

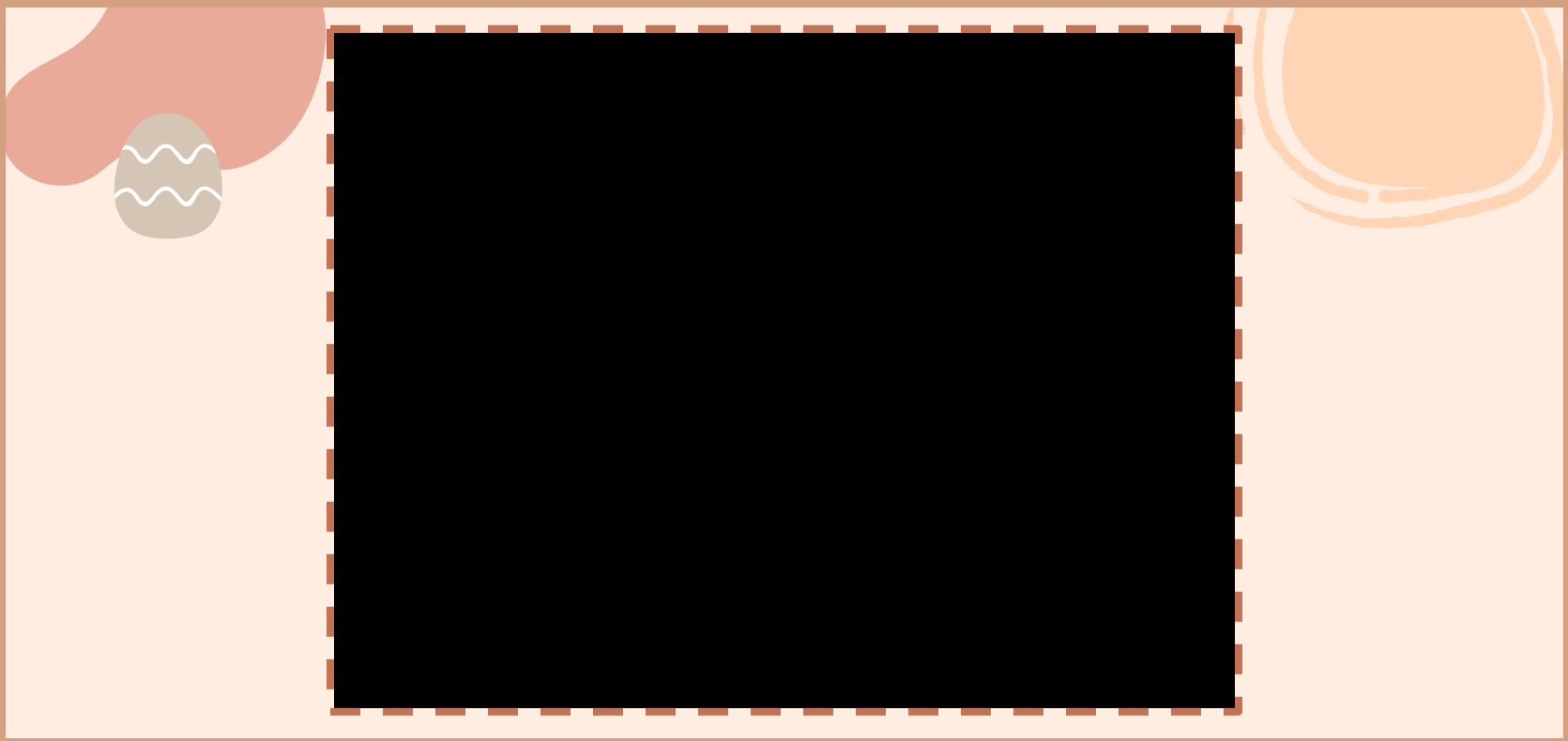


Gameplay

Testing walking & jumping, camera controls and Idle



Short Video Demo





Walking & Jumping



```
if (direction.magnitude >= 0.1f)
{
    // Playerboy point in movement direction
    float targetAngle = Mathf.Atan2(direction.x, direction.z) * Mathf.Rad2Deg + playerCamera.transform.eulerAngles.y;
    float angle = Mathf.SmoothDampAngle(transform.eulerAngles.y, targetAngle, ref turnVelocity, turnSmoothing);

    //Responsible for moving character in movement direction
    Vector3 tempMoveDir = Quaternion.Euler(0f, angle, 0f) * Vector3.forward;
    moveDir = tempMoveDir.normalized;
    cont.Move(tempMoveDir.normalized * playerSpeed * Time.deltaTime);
    playerAnimator.SetBool("Walking", true);
    Debug.Log("WALK");

    if (tempMoveDir != Vector3.zero)
    {
        transform.forward = tempMoveDir * Time.deltaTime;
        //transform.position = Vector3.Lerp(transform.position, target.position, Time.deltaTime);
    }
}
//If (direction.magnitude <= 0.01f)
else
{
    playerAnimator.SetBool("Walking", false);
    // Debug.Log("NO WALK");
}
```

```
grounded = Physics.CheckSphere(groundCheck.position, groundDistance, groundMask);
if (Input.GetButtonUp("Jump")) isJumping = false;
if (velocity.y < 0 && Input.GetButton("Jump") && isJumping == true) isJumping = false;

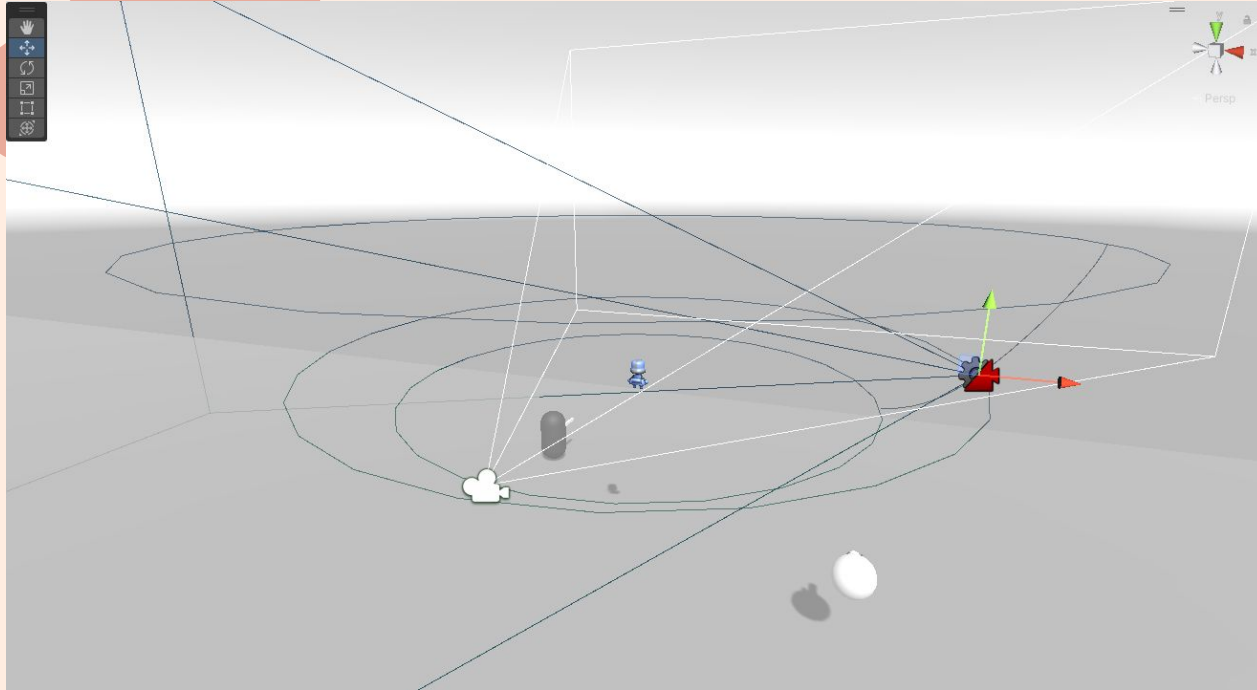
if (grounded && velocity.y < 0)
{
    jumpCount = 0;
}

if (Input.GetButtonDown("Jump"))
{
    if (jumpCount < 2) { initialVelocity = jumpForce; isJumping = true; } //Will not add a
    if (jumpCount <= 2) jumpCount++; //jumpCount will be allowed to go over the max jump c
        over the max by 1, to prevent overflow.
}

if (grounded && Input.GetButtonDown("Jump") && jumpCount <= 2)
{
    //The first jump.
    playerAnimator.SetBool("Jump", true);
    Debug.Log("Jumping true");
}
else if (!grounded && Input.GetButtonDown("Jump") && jumpCount <= 2) //&& jumpCount < 2)
{
    //Every jump beyond the first jump.
    playerAnimator.SetBool("ReJump", true);
    Debug.Log("JUMMMMMMMMMMMMMMMMMMMMMPP");
}
//Keep separate.
if (grounded && !Input.GetButtonDown("Jump") && !isJumping)
{
    playerAnimator.SetBool("Jump", false);
}
```



Camera Control





Dashing



```
IEnumerator Dash()
{
    float startTime = Time.time;

    canDash = false;

    playerAnimator.SetBool("dashing", false);

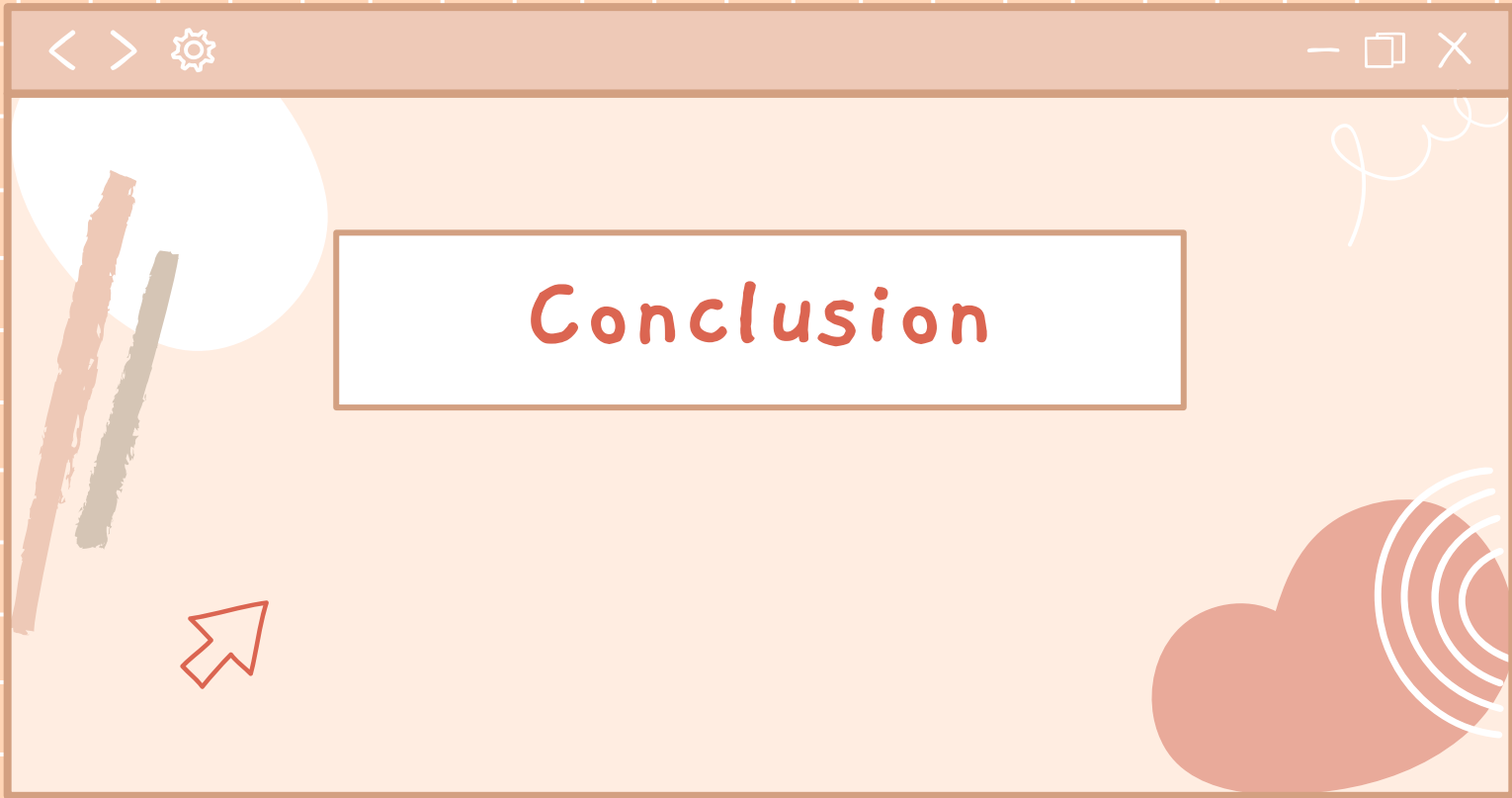
    while (Time.time < startTime + dashTime)
    {
        cont.Move(moveDir.normalized * dashSpeed * playerSpeed * Time.deltaTime);

        playerAnimator.SetBool("dashing", true);
        yield return null;
    }
    yield return new WaitForSeconds(dashCoolDown);

    Debug.Log("Dash Cool Down Over");

    canDash = true;

    playerAnimator.SetBool("dashing", false);
}
```



Conclusion