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# Computer Game

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## Lab Task

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**BSCS**

### **Task 1: Game Loop**

## **Core Loop**

Explore → Collect Resources → Craft/Build → Fight or Survive  
→ Explore Again

The player explores the island and collects resources like wood, stone, and food.

Then the player uses these resources to craft tools or weapons and build shelter.

If monsters appear, the player fights them or avoids them.

After becoming stronger, the player explores new and more dangerous areas.

## **Why does the player repeat this loop?**

The player feels satisfaction when crafting better weapons and surviving longer.

Discovering new areas and getting stronger makes the player want to continue playing.

## **Secondary Loop**

Complete small objectives → Get better items → Unlock new areas

The player completes small tasks like exploring caves or defeating creatures.

These tasks give rare materials or better equipment.

With stronger items, the player can enter harder areas of the island.

## **Motivation:**

Progress and better rewards encourage the player to keep playing.

## **Task 2: Interaction Logic (Pseudo-code)**

### **1. Attack Monster**

#### **Trigger:**

The player presses the attack button.

#### **Condition:**

The monster is near the player and the player has stamina.

#### **Result:**

The monster's health decreases.

The player's stamina decreases.

If the monster's health becomes 0, the monster is defeated and drops loot.

#### **Pseudo-code:**

If Attack Button Pressed

    If Monster Near AND Stamina > 0

        Monster Health = Monster Health - Damage

        Stamina = Stamina - 10

    If Monster Health <= 0

        Give Loot

## **2. Eat Food**

### **Trigger:**

The player selects food from the inventory and uses it.

### **Condition:**

Food is available in the inventory.

### **Result:**

Hunger increases.

Food is removed from the inventory.

### **Pseudo-code:**

If Food Used

    If Food Available

        Hunger = Hunger + 20

        Remove Food

### **3.Craft Weapon**

#### **Trigger:**

The player selects craft option.

#### **Condition:**

The player has enough wood and stone.

#### **Result:**

Wood and stone decrease.

A new weapon is added to the inventory.

#### **Pseudo-code:**

If Craft Selected

    If Wood  $\geq 2$  AND Stone  $\geq 2$

        Wood = Wood - 2

        Stone = Stone - 2

        Add Weapon