using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading;

using System.Threading.Tasks;

namespace ConsoleApp1

{

class Resource

{

public int Id { get; set; }

public string Location { get; set; }

public bool IsValuable { get; set; }

public static int ResourceId { get; set; } = 1;

public Miner[] Miners { get; set; }

public int MinerCount { get; set; } = 0;

public Resource()

{

Id = ResourceId++;

}

public void AddMiner(ref Miner miner)

{

Miner[] temp = new Miner[++MinerCount];

if (Miners != null)

{

Miners.CopyTo(temp, 0);

}

temp[temp.Length - 1] = miner;

Miners = temp;

}

public void Show()

{

Console.WriteLine();

Console.WriteLine("=========RESOURCE==========");

Console.WriteLine($"ID : {Id}");

Console.WriteLine($"Location : {Location}");

var valuable = IsValuable ? "yes" : "no";

Console.WriteLine($"Is valuable {valuable}");

Console.WriteLine($"Total income : {GetTotalIncome()} usd");

}

public void ShowMiners()

{

if (Miners != null)

{

foreach (var miner in Miners)

{

miner.Show();

Console.WriteLine();

}

}

}

private decimal GetTotalIncome()

{

decimal total = 0;

if (Miners != null)

{

foreach (var miner in Miners)

{

total += miner.Income;

}

}

return total;

}

}

class Miner

{

public string Fullname { get; set; }

public double Salary { get; set; }

public int Energy { get; set; } = 100;

public decimal Income { get; set; } = 0;

public Manager Manager { get; set; } = null;

public void DrinkRedbull()

{

Energy += 50;

}

public void Work()

{

if (Energy > 0)

{

Energy -= 5;

Income += 5;

if (Manager != null)

{

if (Manager.Energy > 0)

{

Energy += (int)(Manager.EnergyPercent) \* 5;

Manager.Energy -= 5;

Income += Manager.IncomePercent \* 5;

}

else

{

Manager.Energy = 0;

}

}

}

else

{

Energy = 0;

}

}

public void Show()

{

Console.ForegroundColor= ConsoleColor.Green;

Console.WriteLine();

Console.WriteLine("=============MINER==============");

Console.WriteLine($"Fullname {Fullname}");

Console.WriteLine($"Salary {Salary}");

Console.WriteLine($"Energy {Energy}%");

Console.WriteLine($"Manager Energy {Manager?.Energy}%");

Console.WriteLine($"Income {Income} usd");

Console.ResetColor();

}

}

class Manager

{

public string Name { get; set; }

public int Energy { get; set; } = 100;

public decimal IncomePercent { get; set; }

public decimal EnergyPercent { get; set; }

}

class Controller

{

public static void Start()

{

Resource resource = new Resource

{

IsValuable = true,

Location = "Kelbecer Qizil Medeni"

};

Miner m1 = new Miner

{

Fullname = "Mike",

Salary = 1200

};

Manager manager1 = new Manager

{

Energy = 50,

EnergyPercent = 10,

IncomePercent = 10,

Name = "Abdullah"

};

m1.Manager = manager1;

Miner m2 = new Miner

{

Fullname = "John",

Salary = 1200

};

resource.AddMiner(ref m1);

resource.AddMiner(ref m2);

do

{

resource.Show();

resource.ShowMiners();

m1.Work();

m2.Work();

Thread.Sleep(200);

Console.Clear();

} while (m1.Energy!=0 || m2.Energy!=0);

resource.Show();

resource.ShowMiners();

}

}

class Program

{

static void Main(string[] args)

{

Controller.Start();

}

}

}