Algorithm questions

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1

You are designing an app on a phone which will allow a user to access PEGI 18 games

The user must be 18
It must be the weekend
The user must enter the correct password

Using logic gates show how the app will work out if the user can access the games

Write an algorithm to show this process in code

2

The games app has three games

Zombie_mayhem
Vampire_attack
Evil_dolls

Each game can have 1000 players at once

The number of players is returned by the function **players()** as an integer value when the name of the game is entered as an argument into the function

Express the number of free player spots available for **Vampire_attack** as a line of code

Write a conditional statement to show whether or not the use can play the game

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3

There are three skill levels in each game

Beginner
Intermediate
Expert

To unlock intermediate level the player must be

Have a high score > 25000 and <50000
Have credits > 5000 and < 10000
Be registered for 5+ weeks and <10 weeks

Write an algorithm that will take inputs and output TRUE if conditions are met and FALSE if not

Give examples of normal, error and boundary conditions that can be used to test the algorithm

	High score	Credits	Registered weeks
normal			
error			
boundary			

 4

The laptop that the user is playing on will go into low power mode
when the battery hits 20%
Above 20% each 1% is 5 mins of power
Below 20% each 1% is 10 mins of power

Write an algorithm that will

Show the battery level
Show time left on batter
Enter low power mode when needed
Prompt the user to plug in a charger when the power is 5% or less

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