

Scripting Needs

Quiz, 8 questions

1
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1. Important note to the learner:

The questions in this quiz, and the other quizzes in this course, provide additional challenge in the same general topic areas covered by the preceding lesson. The questions may not cover material directly covered by the preceding videos, but it is material you should know to prepare for the exam. Use these quizzes as another way of testing your knowledge and identifying topics you may need to review.

Also note that these questions are not directly taken from the Unity Certified Programmer exam.

If you have read this and understand, write anything in the box below.

I have read and understood the note to the learner above

Your answer cannot be more than 10000 characters.

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2. A programmer needs to have a persistent instance of a management script that will coordinate the actions of the core interaction loop. What software design pattern would be the most appropriate for the programmer to follow to create this manager script?

- ☐ Abstract Factory
 - ☐ Prototype
 - ☐ Builder
 - ☐ Singleton
-

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3. A programmer has created an `OnTriggerEnter()` script that will turn on a light and start a particle effect when a physics-controlled sphere passes through a doorway. During testing, the sphere rolls to the doorway but is unable to cross through and neither the light nor the particle effect start. There is no error in the console.

What is most likely the cause of this issue?

- ☐ The sphere does not have a Rigidbody attached
 - ☐ The doorway's collider is not marked as a trigger
 - ☐ The doorway is not marked as static
 - ☐ The particle effect and light have not been assigned to the variables of the doorway script
-

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4. A programmer is using `"Vector3 dir = Random.InsideUnitCircle();"` to generate a random velocity in the XY plane. She then wants to modify the velocity so that it is a specific magnitude while still being in the random direction.

What `Vector3` method would help her accomplish this?

- ☐ Scale()
 - ☐ Normalize()
 - ☐ Lerp()
 - ☐ MoveTowards()
-

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5. According to the GDD, the player character (PC) will walk through a room full of floating rocks that bounce off of each other and the PC. The room also has a series of stationary, rectangular, invisible areas positioned throughout the room that need to react when the PC walks through them but not react when the rocks float through them.

Which objects in this scene would need a Rigidbody Component?

- ☐ The PC and the rocks
 - ☐ The PC and the invisible areas
 - ☐ The rocks only
 - ☐ The rocks and the invisible areas
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6. In the same scenario as the last question, which Physics Layers should be checked to interact in the Layer Collision Matrix of the Physics Project Settings?

- ☐ PC-Rocks
- ☐ Rocks-Trigger Areas, Rocks-Rocks

- ☐ PC-Rocks, Rocks-Rocks, and PC-Trigger Areas
 - ☐ PC-Trigger Areas
-

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7. An application will be creating multiple meteorites that will be created off screen and fall to a point on the ground wherever the user has clicked the mouse. The meteorites must be created every time the mouse is clicked and they will explode and disappear when they hit the ground. The programmer is concerned about the performance impact of instantiating many meteorites at the same time and the memory issues related with instantiating and destroying so many objects.

What programming pattern would be most appropriate for the programmer to use to create the meteorites in this situation?

- ☐ Builder
 - ☐ Abstract Factory
 - ☐ Dependency Injection
 - ☐ Object Pool
-

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8. Application requirements specify that background music should play continuously throughout the entire experience regardless of scene transitions. The music should only restart if the application is closed and reopened. The programmer has created a MusicManager script to play background music and placed it on a GameObject in the first scene, where a method to play the music is called on Awake().

What else should the programmer do to satisfy the requirements?

- ☐ In the editor place a prefab of the MusicManager GameObject in each scene of the application
- ☐ Turn on the Static checkbox in the inspector for the MusicManager GameObject in the first scene.
- ☐ Add `"DontDestroyOnLoad(this.gameObject);"` to the Awake method in the MusicManager script
- ☐ Instantiate the MusicManager GameObject when a new scene loads

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