



UNREAL FUTURES

CAREERS IN ADVERTISING

Student Guide

MEDIA MONKS

Congratulations! You're about to embark on a journey with MediaMonks, a global creative agency that specializes in marketing and advertising for some of the biggest companies in the world. Your job is to use Unreal Engine, the same computer software that powers popular games like Fortnite to create a digital advertisement for one of the world's most beloved cookies—Oreo™.

Below, your contact at MediaMonks will provide you with more information and instructions. Good luck!



WELCOME TO MEDIAMONKS!

"My name is Shiv Ramann, I'm on the team at MediaMonks in India. Everyone on our team here at MediaMonks is thrilled to have you on board! We could really use your help on one of our new projects.

Here at MediaMonks, we use computer software called Unreal Engine. Many people use Unreal Engine to create video games, but we use it to create professional animations for digital advertisements. Oreo™ has hired us to create an experimental digital advertisement for them using Unreal Engine. You've been recruited to help us build this ad.

To help get you up to speed, the team has created a few introductory video resources and tasks for you. On the next page, you can also find a list of "Key Terms" our team put together. As you go through the exercises on the coming pages, if you're unsure what a particular term means come back to the Key Terms section below for help.

Excited to have you on our team!"

Key terms:

Asset: a piece of content (sound, texture, or 3D model) that is used in Unreal Engine.

Compositing: process by which multiple image elements from different sources are combined into a single image, making them appear as though they are all part of the same scene.

Interactive 3D: a digital environment that allows for real-time 3D interaction. Examples of interactive 3D include video games, virtual reality (VR) and augmented reality (AR).

Real-time rendering: the process by which digital 3D images are converted (in real time) to 2D images, allowing for immediate feedback and live interaction.

Sequencer: a tool in Unreal Engine that allows you to create, edit, and preview animation sequences in real-time.

Unreal Engine: computer software specialized to render 3D images in real time.

UI (User Interface): the point of contact that allows the user to interact with computer software. Examples include the touch screen on a phone that can be pressed to activate underlying software or applications.

INTRODUCTION TO UNREAL ENGINE IN ADVERTISING



"Hi there! I'm Kamy Leach, a technical account manager at EPIC Games. I help companies like MediaMonks to get the most out of Unreal Engine. We've made three introductory videos for you to help get you oriented to Unreal Engine and how it is used to create a commercial. We've also created a video about some exciting careers in advertising. You can find these videos below."

- ▶ **Kickoff**
- ▶ **Careers**
- ▶ **Behind the Scenes**



"Thanks, Kamy. Before we move on to having you actually work on the project, though, let's make sure you feel comfortable with what you've learned so far. To do that, answer the questions to the right and check out the Project Overview on the next page."

1. **What is the main benefit of "real-time" 3D tools compared to those that are not in "real-time"?**
 - a) Higher resolution when rendering
 - b) More sophisticated editing tools
 - c) Rendering that is almost instantaneous
2. **Unreal Engine software can be applied to:**
 - a) The creation of games
 - b) The advertising industry
 - c) The medical field
 - d) Architectural design
 - e) All of the above
3. **In the Behind the Scenes video, John Paite mentioned that compositing is like:**
 - a) A bus driver at the wheel
 - b) A chef at work
 - c) A marathon runner
 - d) An endlessly rotating wheel.
4. **John Paite's advice for creating a project is to:**
 - a) Animate first, do lighting second
 - b) Create good lighting first, then animate second.
5. **To have a job at MediaMonks you have to be a programmer or developer that can write computer code.**
 - a) True
 - b) False

PROJECT OVERVIEW



“Before moving on, let’s summarize the project you have been assigned to and all the key players. Check out the graphic our team made for you to the right.

A company such as Oreo hires an advertising agency such as MediaMonks. MediaMonks engages various people, such as you, to help them meet the needs of the company.”



PART 1: INSTALLING UNREAL ENGINE



“Now that you’re settled and ready to begin, I’ll turn you over to Sonali who is an animator and Unreal Engine trainer. She will guide you through installing and using Unreal Engine. Thanks, Sonali!”



“Of course! Let’s get started. The first step to starting your project will be to download Unreal Engine. In the video below, I’ll walk you through the installation of two key tools you’ll need: the Epic Game launcher and Unreal Engine.”

Note: If you’re using a Mac, please follow [these instructions](#) before viewing the video.

▶ [Video link here](#)

▶ [Recommended Hardware
and Software Specifications](#)

1. What is the goal of this project?

- a) To digitally recreate a short video animation.
- b) To learn how to hand draw characters and animated sequences using pencil and paper.
- c) To learn how to write computer code.

2. What is the “Library” in the Epic Game Launcher?

- a) A collection of books that summarize the theory behind interactive 3D
- b) The home for all your Unreal engine versions, projects, and content downloaded from the Marketplace
- c) The tab where you can buy new content to add to your projects.

PART 2: GETTING TO KNOW UNREAL ENGINE



“Great job downloading Unreal Engine! It can seem a bit overwhelming at first but you’ll get the hang of it. I made the video below to get you comfortable with using Unreal Engine. Once you become familiar with the basics, we’ll get you started on creating the digital advertisement!”

▶ [Video link here](#)



1. What is the WASD method?

- a) A way to add lighting to the viewport.
- b) A way to zoom into and out of the layout.
- c) A way to move up and down in the viewport, but not left and right.
- d) A way to move in all directions in the viewport.

2. If you press the left mouse button and hit the W key, which way do you move?

- a) Left
- b) Right
- c) Forward
- d) Backward

3. Which button is used to focus on a particular actor in the viewport?

- a) A
- b) W
- c) B
- d) F

4. Which statement below best describes an actor?

- a) People that you place into your project.
- b) Shapes that you place into your project.
- c) Anything that you can place into your level.

5. Using the image below, where can you go to access tutorials to learn more about using the Epic Games Launcher?

- a) Region 1-left side
- b) Region 1-right side
- c) Region 2
- d) Region 3
- e) Region 4

PART 3: TOUR OF THE PROJECT ASSETS



"You're learning so fast! It took me weeks to learn how to use the Viewport! Great job! In the next few steps, we'll have you recreate a test advertisement that MediaMonks recently made. Once you've recreated this ad and feel comfortable using Unreal Engine, we'll have you make your own ad which we will then send to our client.

Let me first show you the ad you'll recreate:

▶ [Video link here](#)

"It was only a few seconds of video, and it might seem simple, but there is a lot going on. Camera movement, lighting, a spinning package, and other visual effects make the ad look appealing. In the next steps, we'll teach you how to use Unreal Engine to recreate this ad. To get started, watch the video below and answer the questions to the right."

▶ [Video link here](#)

1. **To use Blueprints in UE4, you need to know how to be able to write computer code.**
 - a) True
 - b) False
2. **Everything that you see or interact with in your project resides in a:**
 - a) "Step"
 - b) "Level"
 - c) "Key"
 - d) "Sequence"
3. **In Unreal Engine 4, levels are also referred to as:**
 - a) Maps
 - b) Meshes
 - c) Materials
 - d) Cinematics
 - e) Keys
4. **Which of the following are images that can be applied or mapped to a variety of surfaces:**
 - a) Meshes
 - b) Textures
 - c) Levels
 - d) Patterns
5. **Which asset could be applied to a mesh to change how shiny or reflective an object is, or make it appear rusty?**
 - a) Materials
 - b) Textures
 - c) Maps
 - d) Meshes

PART 4: INTRODUCTION TO SEQUENCER



“Now that you’re familiar with the project assets, in the next two steps we’re going to make the ad come to life by adding animation. In the video below, I’ll introduce you to Sequencer, a tool within Unreal Engine to create and preview animation sequences. We’ll also set up the project so that we can add animations in Part 5.”

▶ [Video link here](#)

1. Which of the following is true about the Sequencer?

- a) It is similar to video editing software
- b) It helps you create animated videos
- c) You can add cameras within the Sequencer
- d) You can immediately see your results.
- e) All of the above

2. To use Sequencer to create your animation, you first have to:

- a) Add your first keyframe.
- b) Add a camera to the scene.
- c) Add in-betweens to your animation.
- d) Add a Level Sequence

3. Tracks can consist of:

- a) Animations
- b) Music
- c) Sound Effects
- d) All of the above
- e) None of the above

4. The UE4 software always and automatically detects the right camera lens to use for your shot.

- a) True
- b) False

5. A “Transform” track contains information about:

- a) The size of squares in your project
- b) The location, rotation, and scale of the actor
- c) The circular movement of objects throughout the scene
- d) None of the above.

PART 5: ANIMATION



"You already have the camera added? That was fast. Great job! Next we're going to bring our scene to life by animating the camera and the cookie package. You know the drill: watch the video I made for you and answer the questions to the right."

▶ [Video link here](#)


1. What is a "key"?

- a) A code that unlocks new blueprints.
- b) A code that unlocks new meshes and more advanced cameras.
- c) Information that tells UE4 where to place the camera for a particular frame.

2. Which keyboard stroke is used to add a key?

- a) "F"
- b) "K"
- c) "R"
- d) "S"
- e) "T"

3. Which button will allow you to automatically add keys to an object every time you change its properties?

- a) 
- b) 
- c) 
- d) 

4. Interpolation or "tweening":

- a) Fills in information between two keyframes
- b) Removes keyframes that lead to the camera being out of focus
- c) Fills in the lighting if the system detects dim sections

5. To create rotations around the Z axis, we adjust the:

- a) Pitch
- b) Roll
- c) Angle
- d) Yaw





PART 6: LIGHTING AND RENDERING



"You're almost done with our introduction to Unreal Engine in Advertising! To put the finishing touches and make our ad look professional and as realistic as possible, we're going to learn how to add and adjust the lighting of the scene. Once we've got the project looking exactly like we want, I'll show you how to render your movie (rendering is just a fancy way to say that the computer is going to take the 3D animation you made in Unreal Engine and convert it into a 2D video which you can save as a movie file). Have fun!"

▶ [Video link here](#)

1. Which button in the Sequencer should you use to render your animation:

- a) 
- b) 
- c) 
- d) 

2. Directional light is ideally suited to simulate which light source?

- a) A light bulb in the middle of the room.
- b) A light bulb in the corner of the room.
- c) A very distant light source like the sun.

3. A point light behaves most like:

- a) A light bulb
- b) A spotlight
- c) Light coming in through a window

4. To highlight one subject in a scene, you typically use:

- a) A point light and a rim light
- b) 3-point lighting
- c) A spotlight
- d) 4 directional lights

5. Say the underside of the package in the scene is a bit too dark. What could you use to fix this?

- a) Key light
- b) Sky light
- c) Fill light
- d) Point light

PART 7: CREATING YOUR OWN ADVERTISEMENT



“So far, you have learned how to recreate the MediaMonks experimental ad. But we still want to modify the piece to be more dynamic. That’s where you come in.

Now, our team wants you to take everything you learned about Unreal Engine, animation, lighting, cameras, and the Sequencer to make your own version of the ad.

Here are a few versions we think the client might be interested in:

1. A spooky Halloween version of the ad. What might you need to do to the lighting to make the scene look more scary, more like Halloween?
2. A happy, fun birthday version of the ad. Maybe the package could be dancing and grooving to a birthday song? How would the lighting and animation change for this version?
3. What other ideas do you have to show the client? Here, there are no instructions. Our team is relying on your brain and your creativity. That’s why you’re here! If you think of a great idea, go for it! Create and be ready to pitch that idea to Oreo™. They might just love it.

Our team is counting on you but we know you’re going to do great!”