Understand the concept (mathematical details are not required) of rendering and be familiar with the terms wireframing, ray tracing, lighting, key frame, mapping, texture, 3D animation.

**Rendering**: Rendering is the process involved in the generation of a two-dimensional or three-dimensional image from a model by means of application programs. Rendering is mostly used in architectural designs, video games, and animated movies, simulators, TV special effects and design visualization. The techniques and features used vary according to the project. Rendering helps increase efficiency and reduce cost in design.

Two categories of rendering:

* Real-time rendering
* Pre-rendering

**Wireframing**: A wireframe is a two-dimensional illustration of a page’s interface that specifically focuses on space allocation and prioritization of content, functionalities available, and intended behaviors. For these reasons, wireframes typically do not include any styling, color, or graphics. Wireframes also help establish relationships between a website’s various templates.

**Ray tracing**: Ray tracing is a rendering technique that can produce incredibly realistic lighting effects. Essentially, an algorithm can trace the path of light, and then simulate the way that the light interacts with the virtual objects it ultimately hits in the computer-generated world.

**Lighting**: The simulation of light in computer graphics. This simulation can either be extremely accurate, as is the case in an application like Radiance which attempts to track the energy flow of light interacting with materials using radiosity computational techniques.

**Keyframe**: a location on a timeline which marks the beginning or end of a transition. It holds special information that defines where a transition should start or stop. The intermediate frames are interpolated over time between those definitions to create the illusion of motion

**Mapping**: a method for defining high frequency detail, surface texture, or color information on a computer-generated graphic or 3D model.

**Texture**: The term texture is a somewhat confusing term in computer graphics and generally does not mean controlling the small-scale geometry of the surface of a computer graphics object, which is the normal meaning of the word. A better term is color map. Texture is mapped onto an already available surface.

**3D animation**: Animating objects that appear in a three-dimensional space. They can be rotated and moved like real objects. 3D animation is at the heart of games and virtual reality, but it may also be used in presentation graphics to add flair to the visuals