

## Assessments & Feedback

### Assignment Marking Rubric 2024

Criteria	Ratings		
<p>This criterion is linked to a learning outcome3D Models</p> <p>20 marks towards the quality of the 3D models: This part of the assignment considers the quality of your Lab 3D models from a scene perspective, e.g. is the model illuminated correctly, do you have sufficient camera viewpoints, is the geometry optimal and have you applied appropriate materials and textures? Specifically:</p> <p>Efficient geometry for the 3D models.</p> <p>Good use of materials and textures where needed.</p> <p>Appropriate use of lighting models and camera types.</p> <p>This criterion is linked to a learning outcome3D App Implementation</p> <p>50 marks towards the actual implementation of the assignment as an interactive 3D App exploiting 3D models with efficient uses of HTML5, CSS3, X3D, THREE.JS, JavaScript, AJAX, JSON, XML, PHP, SQLite and frameworks such as Bootstrap, and innovative use of technologies to create a unique Web 3D Application, including use of other appropriate media objects (images, video, audio, etc.). The 3D App will be examined for its:</p> <p>[15 Marks] Design quality and implementation including</p>	<b>20 to &gt;15.0 Pts</b>	<b>15 to &gt;10.0 Pts</b>	<b>10 to &gt;5.0 Pts</b>
	<b>Excellent</b>  Your 3D models demonstrate excellent geometry, materials, textures, lighting models and camera types as indicated in the criteria.	<b>Good</b>  Your 3D models demonstrate good geometry, materials, textures, lighting models and camera types as indicated in the criteria.	<b>Average</b>  Your 3D models demonstrate average geometry, materials, textures, lighting models and camera types as indicated in the criteria.
	<b>50 to &gt;35.0 Pts</b>	<b>35 to &gt;25.0 Pts</b>	<b>25 to &gt;10.0 Pts</b>
	<b>Excellent</b>  Your 3D App demonstrates an excellent standard of implementation of the features illustrated in the criteria. Your 3D app demonstrates an excellent understanding of the production of the features illustrated in the criteria.	<b>Good</b>  Your 3D App demonstrates a good standard of implementation of the features illustrated in the criteria. Your 3D app demonstrates a good understanding of the production of the features illustrated in the criteria.	<b>Average</b>  Your 3D App demonstrates an average standard of implementation of the features illustrated in the criteria. Your 3D app demonstrates an average understanding of the production of the features illustrated in the criteria.

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usability. Good use of fluid grid layout with HTML and CSS3. Good styling with CSS3. Design of input features, e.g. CSS button styling. Usability.	
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[10 Marks] Integration of media  
including images, audio, video  
and 3D.

Efficient loading of 3D models  
through a good user interface.  
Triggering animations, audio,  
etc. through appropriate  
interfaces, e.g. buttons,  
proximity sensor, ... on the user  
interface

Appropriate lighting and  
application of cameras  
triggered through JavaScript  
buttons, e.g. turn on/off spot  
light, ... on the user interface  
3D content swapping, i.e.  
changing of elements of the  
model (switch to wireframe,  
change a textures, ... ).

Description of your 3D objects  
in the Web 3D Application.  
How well is this is integrated in  
appropriate text boxes.

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[10 Marks] Interaction with the  
3D models.

Ability to manipulate the 3D  
model using JavaScript or  
X3DOM, for example:  
Use of cameras to view the 3D  
model.

Animation features — use of  
JavaScript to trigger any  
animation!

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### Criteria

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[15 Marks]

Implementation of your 3D APP with an 'about' page explaining how you have produced your model and the design choices you have made. You may wish to explain how you have considered accessibility in your design on this page.

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This could include implementation of your 3D App with a MVC design pattern. Implementation of a good MVC design pattern exploiting HTML5, CSS3, JavaScript (and/or appropriate Libraries and frameworks), AJAX, JSON, PHP (and/or appropriate libraries or frameworks) and SQLite.

This criterion is linked to a learning outcome  
Demonstrating Deeper Understanding

Applying Shaders and texturers GLSL (GL Shader Language) to your project to provide effective and justified effects.

Applying post-processing tools to develop stylised looks to website animations.

**20 to >15.0 Pts**

**Excellent**

Your 3D App implementation demonstrates at greater than 3 of the features listed in the criteria.

**15 to >10.0 Pts**

**Good**

Your 3D App implementation demonstrates at least 2 of the features listed in the criteria.

**10 to >5.0 Pts**

**Average**

Your 3D App implementation demonstrates at least the features listed in the criteria.

## Assignment Marking Rubric 2024

### Criteria

### Ratings

20 marks will be reserved for demonstrating deeper understanding by extending the work beyond the laboratory tutorials across any element of your 3D App development. For example, you might make:

More complicated 3D models, but don't spend your whole life doing this, you need to balance time against marks

Marks are also available for using 3D authoring packages, e.g. Maya and Cinema 4D, that are not taught in the labs, and associated workflows

Good use of a JavaScript Libraries, e.g. JQuery, JQuery Mobile , etc. beyond Lab 8

Good use of a front-end JavaScript framework, e.g. Bootstrap, AngularJS ...

Going beyond the level of PHP covered in the labs, e.g. Use of a PHP database abstraction layer in the form of a lightweight framework, e.g. SLIMLinks to an external site., and a simple database for the backend.

More focus on developing your own simple API for the backend.

Clever use of 3D interactions, e.g. sophisticated animations that support the story around the object — not simple animations such as rotating the object, that is covered above.

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<p>This criterion is linked to a learning outcome</p> <p>Implementation and Publication of Assignment - Required Evidence</p> <p>20 marks are assigned to a correct publication of your 3D App so that it can be tested by someone else.</p> <p>Evidence to demonstrate this includes submitting in the 3D App - CONTRIBUTORY SUBMISSION section the following components:</p> <p>1) Packaged and launched through Visual Studio Code.</p> <p>2) 3D App Implementation ITS Web Server URL.</p> <p>3) GitHub 3D App Codebase URL.</p> <p>4) GitHub VRML/X3D Models URL.</p> <p>5) 3D App Deeper Understanding Statement with feedback from testing.</p> <p>Total points: 100</p>	<b>10 to &gt;0.0 Pts</b>	<b>0 Pts</b>	
	<b>Passed</b>		<b>Poor</b>
	Your 3D App implementation has been successfully published and tested.		Your 3D App tested

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