# Lab 4: Introduction to Tinkercad
# CSE 2100-001

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## 1 Objective

Create a Tinkercad account and design a 3D model of a typical car or truck. At a minimum, your car should have 4 wheels and a body with a roof. The size of your model should fit within a 3x6x3 (width x length x height) inch volume. Additionally, the rear and front wheel pairs should be aligned along the same axis. You are encouraged to add additional detail, such as body contours, embossed text, colors, hood ornaments, etc. The best design in each section will be 3D printed and returned to the designer at a later date.
Show your design to the lab GTA when you are done, and submit a copy of your .STL file along with your weekly lab report. If you are working with a partner, you only need to design a single 3D model (but you must both submit the .STL file on your BlackBoard account).

### 1.1 Definitions

**CAD** : is also known as computer aided design and it is used for creating precise drawings or technical illustrations.

**Solidworks** : is a design software that provides powerful design functionality.

**AutoCAD** : is a CAD (computer aided design) used for drafting and design.

**.STL** : is the file extension for an STL file format. it is associated to the CAD software created by 3D Systems.

**.OBJ** : is the file extension for OBJ file format. it contains a 3D image format that can be opened and exported by various 3D image editing programs.

## 2 Question 1

**What action must be done to combine several primitive geometric shapes into a single complex part?**

To combine several geometric shapes into a single complex shape, a group tool must be used.

## 3 Question 2

**What steps would you take to create a hollow 5 inch cube with 0.5 inch thick walls?**
The steps are: we create a 5 inch cube which is 0.5 inches in all sides. then we use the inspector tool to create a model cube and then make a whole. after that, we build a void to make a whole.