IIT BOMBAY

Selection types

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Outline

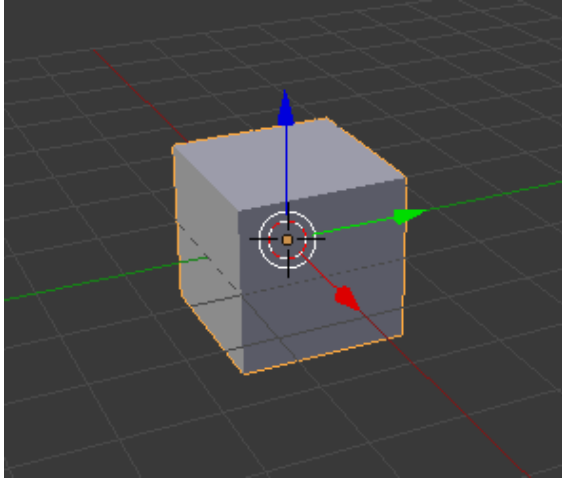Interacting with an object

- Object mode

- Edit mode

  - Mesh

  - Selecting various components of object

    - Vertex

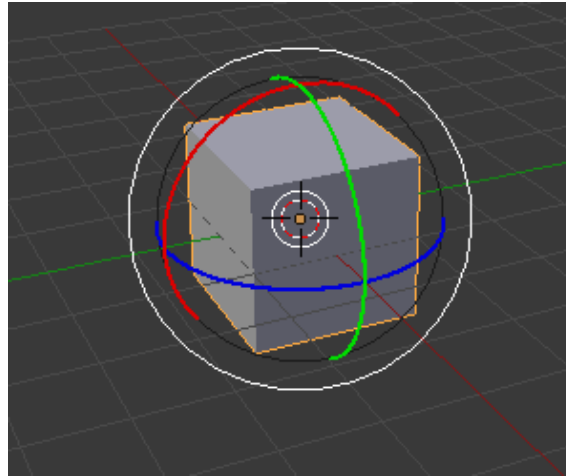   - Edge

    - Face

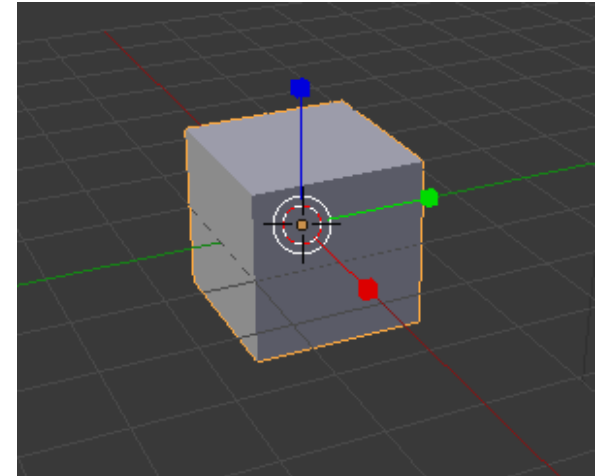# Interacting with an object

- Object mode
- Edit mode

Object mode

Selection type to modify object in object mode:
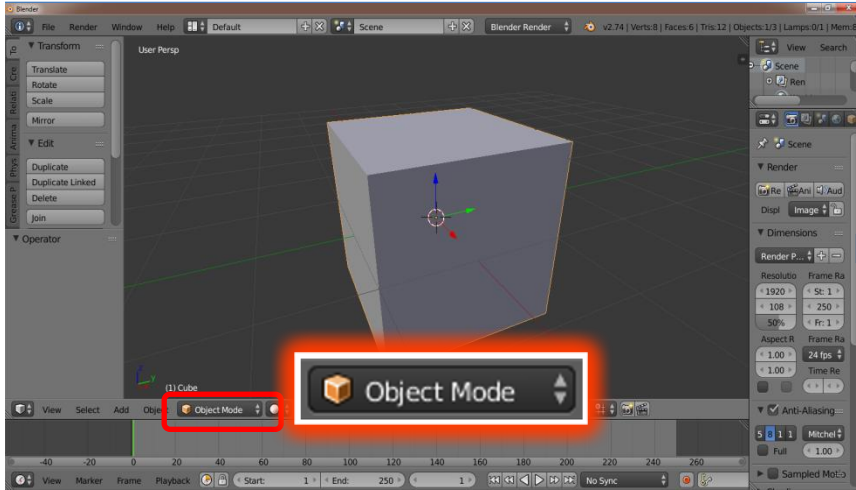

Grab (Keyboard - G)

Rotate (Keyboard - R)

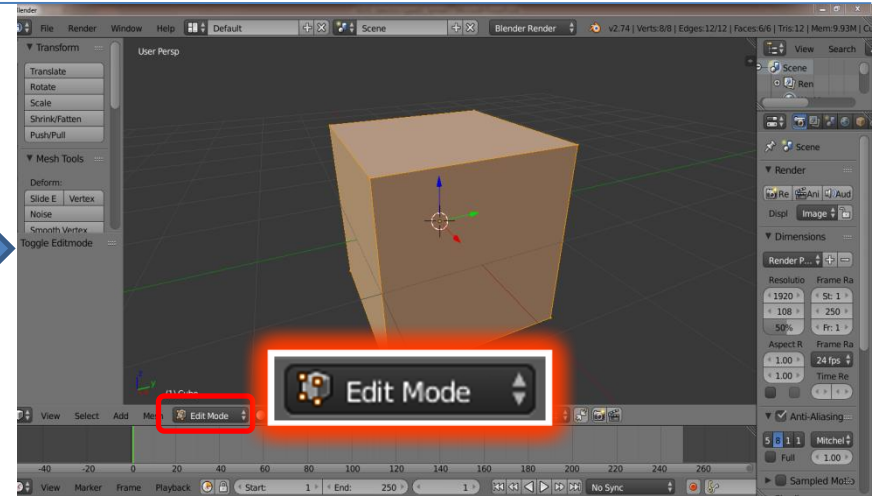Scale (Keyboard - S)
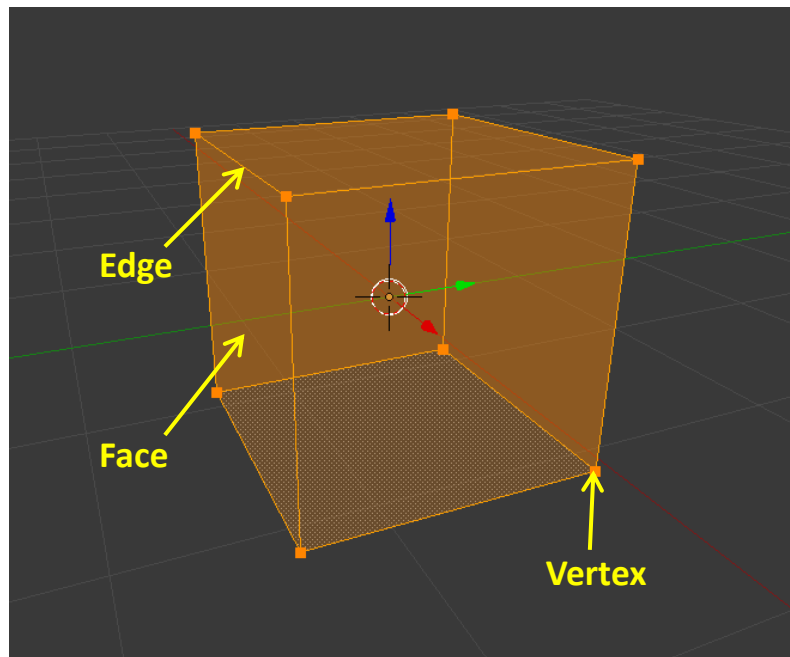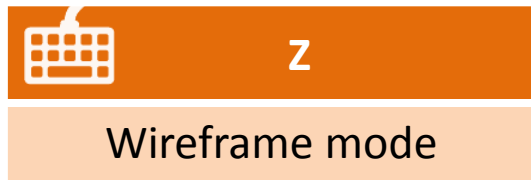
Edit mode

Object mode

Edit mode

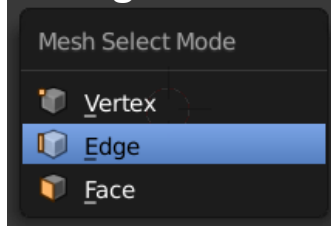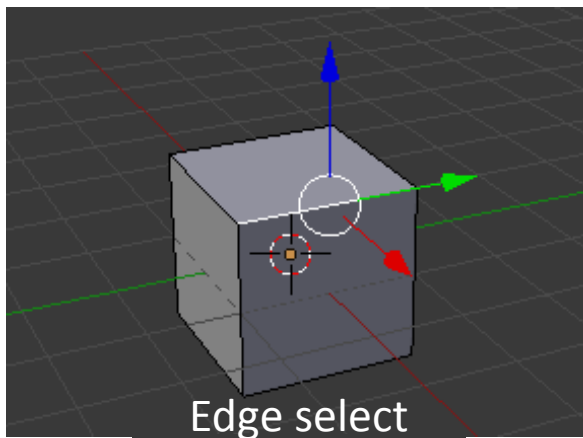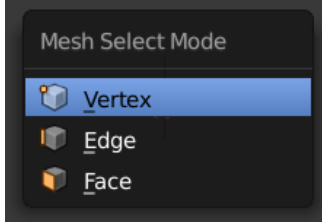| ⌨ Keyboard	Actions
Tab	Toggle between Edit mode and Object mode

Mesh

A mesh is a combination of vertices, edges, and faces that describe the shape of a 3D object

- Vertex - a vertex is a single point
- Edge - an edge is a straight line segment connecting two vertices
- Face - a face is a flat surface enclosed by edges

Z

Wireframe mode

Mesh components
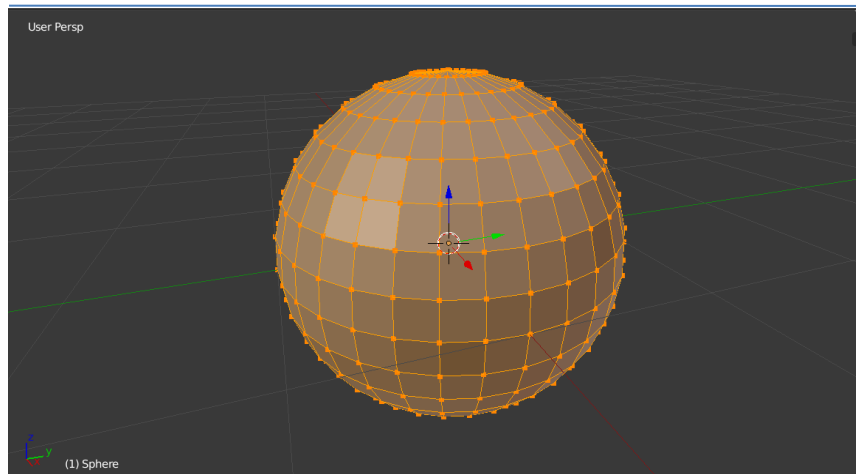
Selection type to modify object in edit object: (Keyboard – Ctrl + Tab)

Vertex select

Edge select

Face select
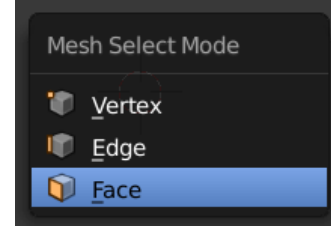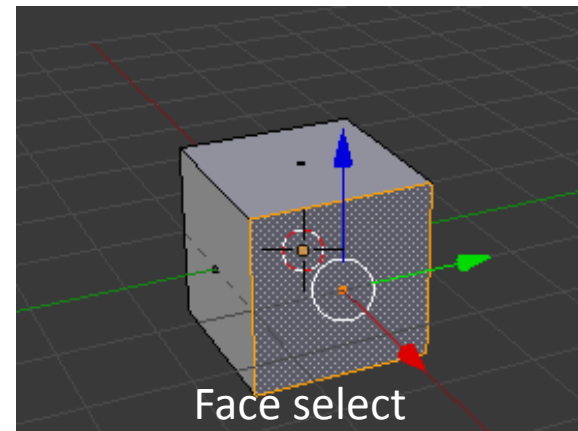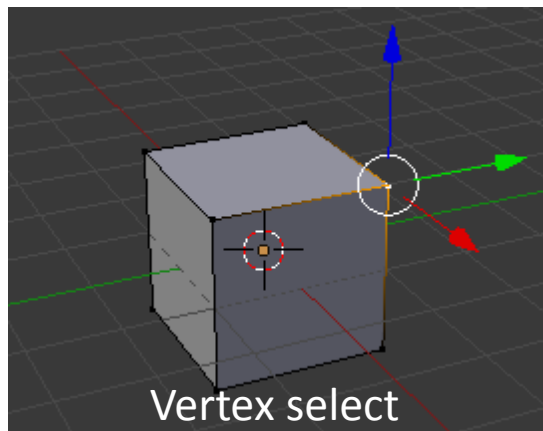
Vertex
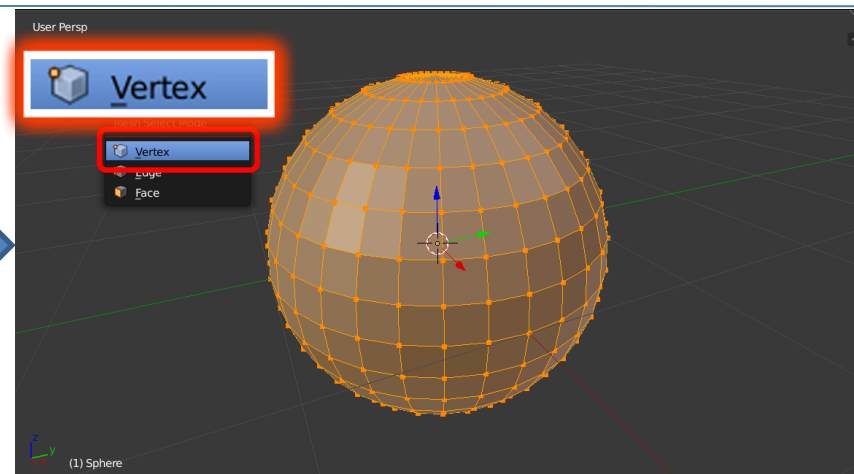
Vertex

Edit mode

Vertex select

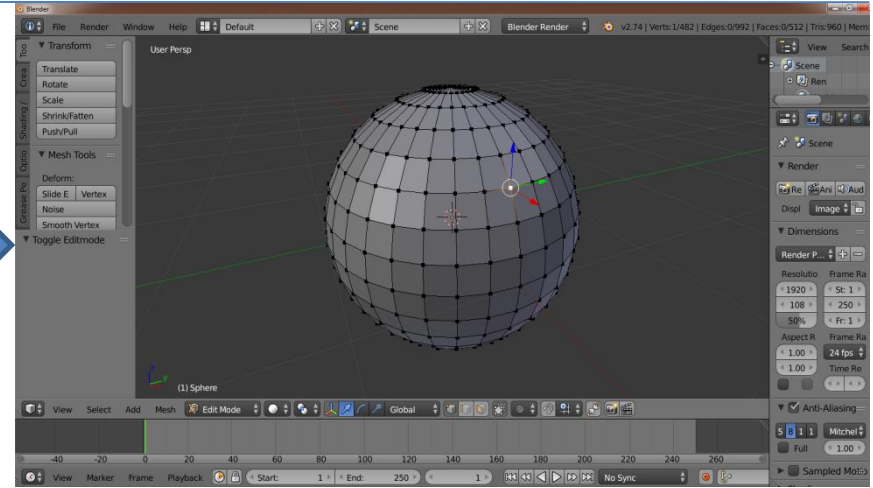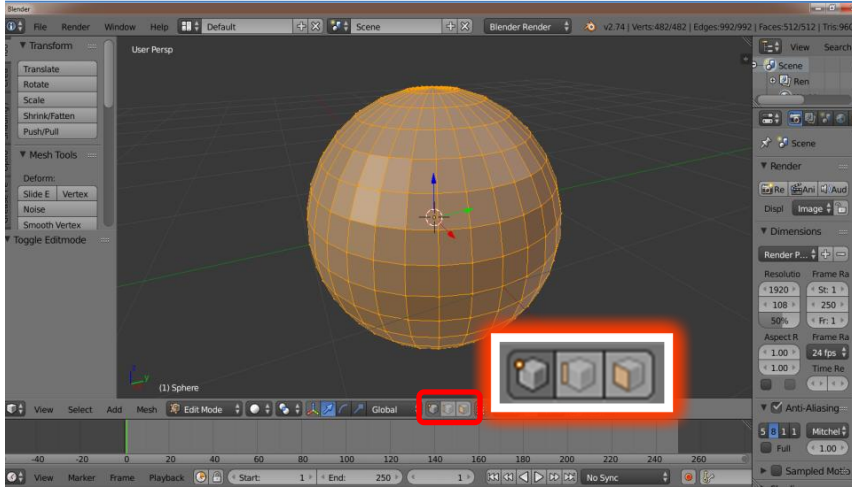| ⌨ Keyboard	Actions
Ctrl + Tab	Select 'Vertex' option

Tip

- While switching from object mode to edit mode, by default mesh selection mode will be in vertex selection

- Similar to object mode, keyboard shortcut – A is toggle to deselect and select all the vertices, edges or faces in edit mode

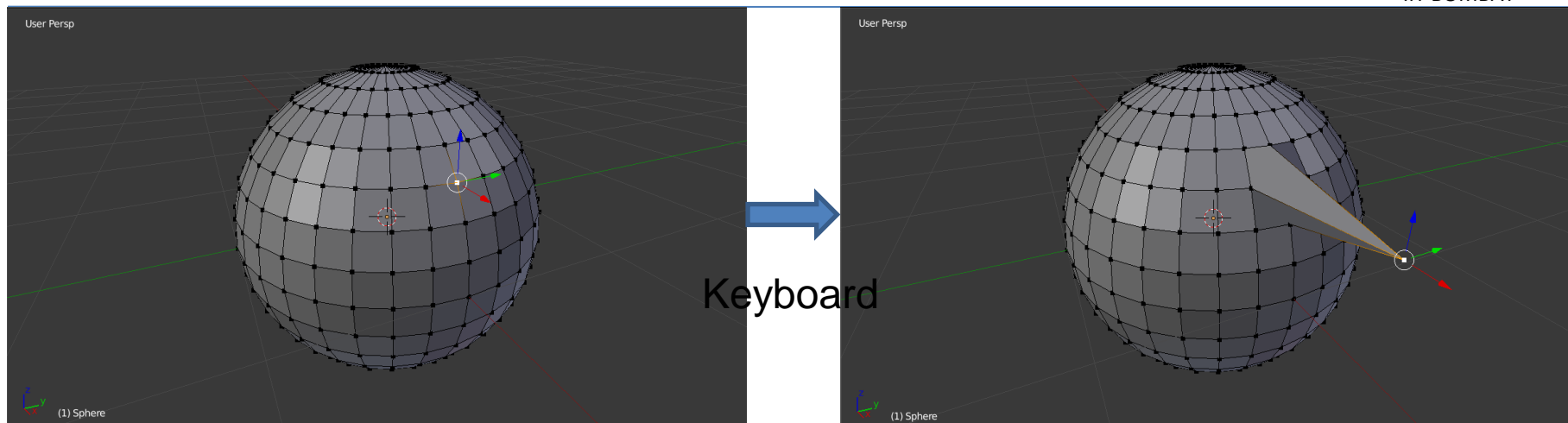# Vertex select option on 3D window header

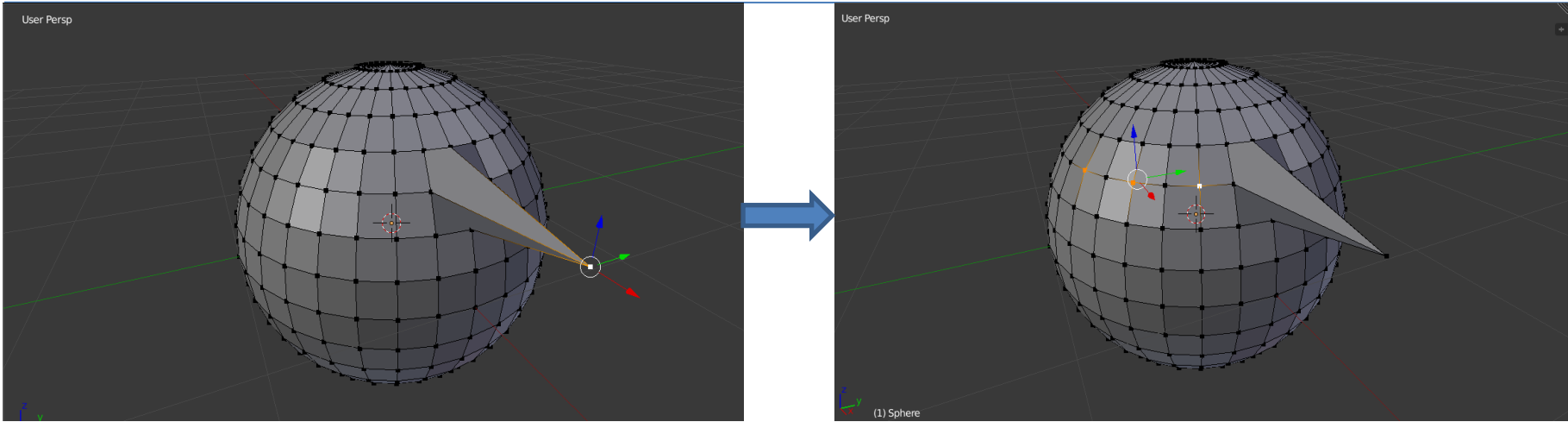| Vertex select	Mouse	Actions
	Right click	Select vertex

Modify object with vertex selection

Keyboard

Keyboard ⌨	Mouse 🖱	Actions	Transformation	
			Accept	Cancel
G	Move mouse	Grab	Left click	Right click/Esc

Multiple vertex selection

⌨️ **Keyboard / Mouse** 🖱️	**Actions**
Shift + Right click	Select vertices

Modify object with multiple vertex selection

Keyboard ⌨	Mouse 🖱	Actions	Transformation	
			Accept	Cancel
G	Move mouse	Grab	Left click	Right click/Esc

Edge

Edge
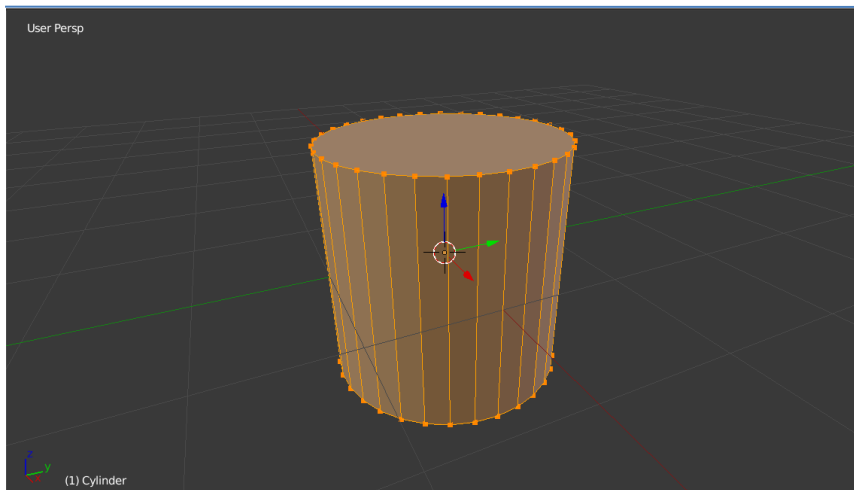
Edit mode
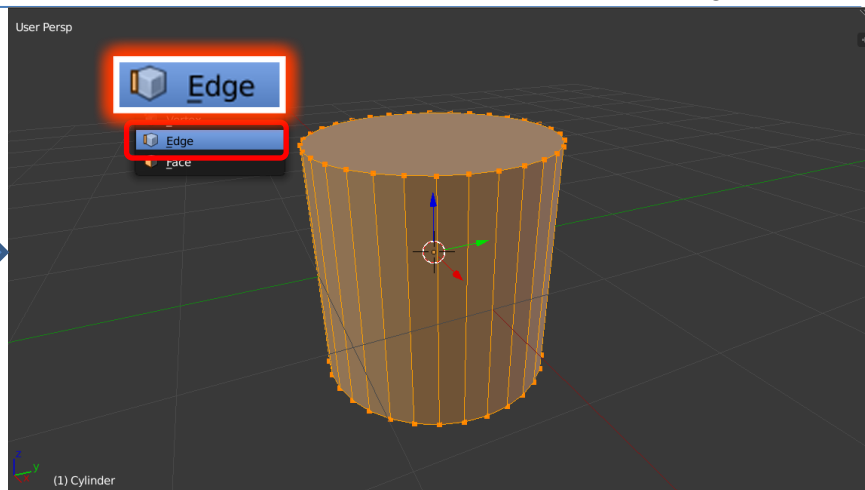
Edge select

⌨ Keyboard	Actions
Ctrl + Tab	Select 'Edge' option

Edge select option on 3D window header
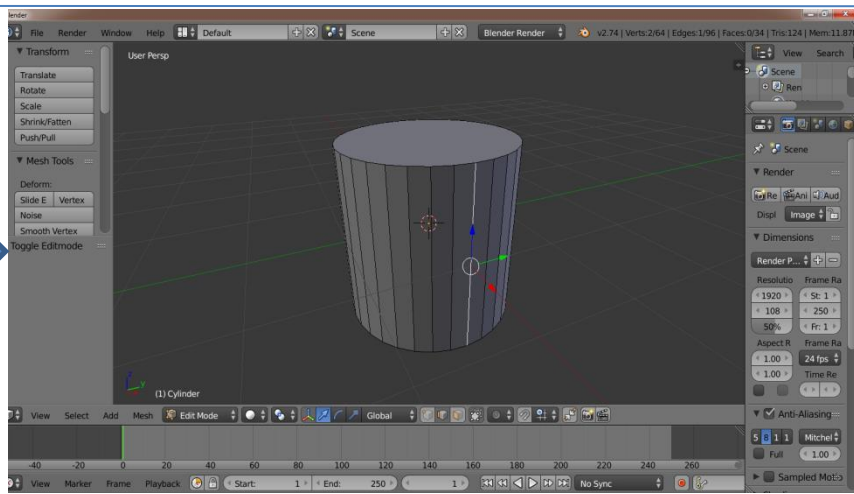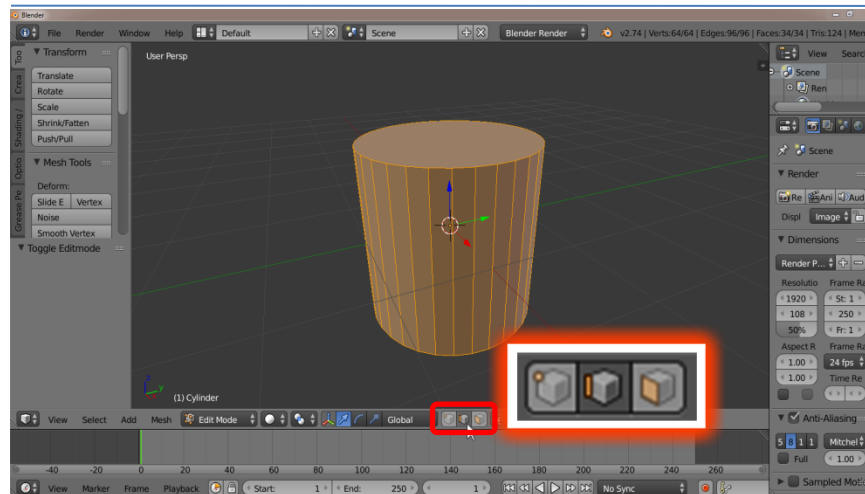
Edge select	Mouse 🖱	Actions
	Right click	Select edge

Modify object with edge selection

Keyboard ⌨	Mouse 🖱	Actions	Transformation	
			Accept	Cancel
G	Move mouse	Grab	Left click	Right click/Esc

Multiple edge selection
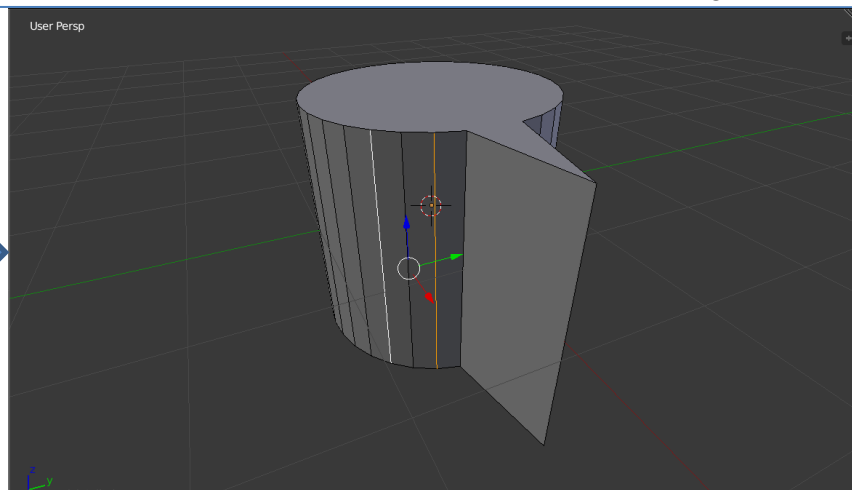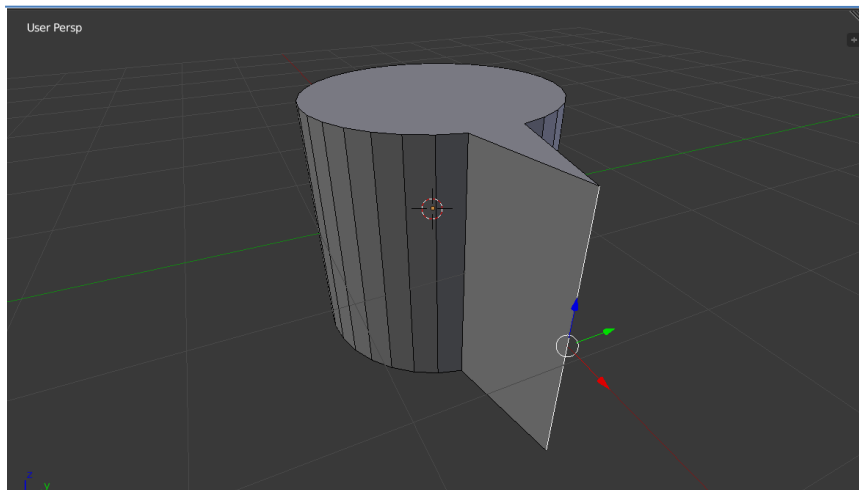
⌨ **Keyboard / Mouse** 🖱	**Actions**
Shift + Right click	Select edges

Modify object with multiple edge selection

Keyboard ⌨	Mouse 🖱	Actions	Transformation	
			Accept	Cancel
G	Move mouse	Grab	Left click	Right click/Esc

Face

Face select
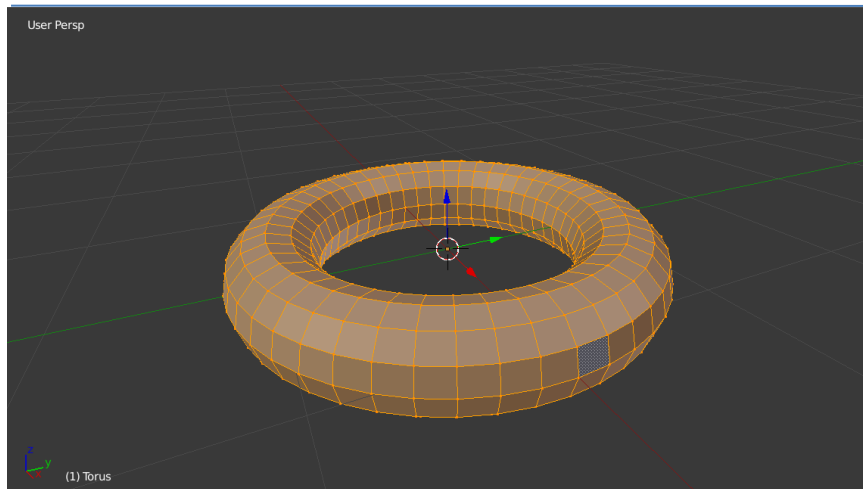
Edit mode
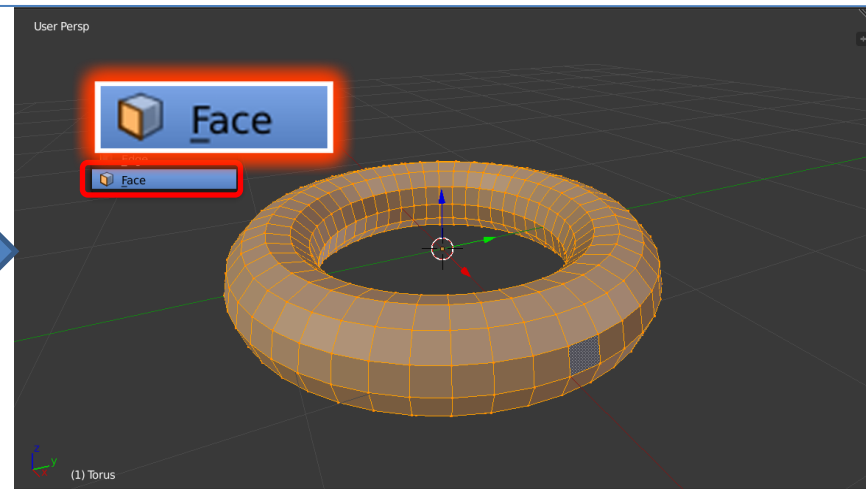
Face select

⌨ Keyboard	Actions
Ctrl + Tab	Select 'Face' option

Face select option using 3D window header

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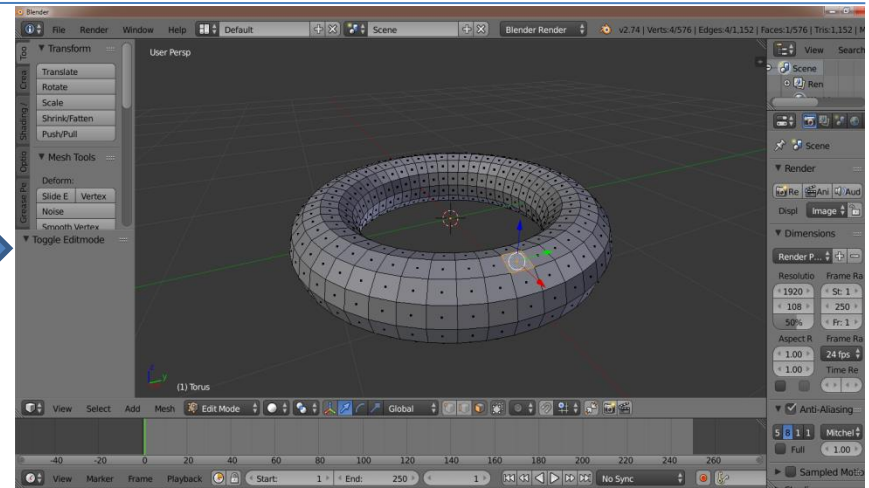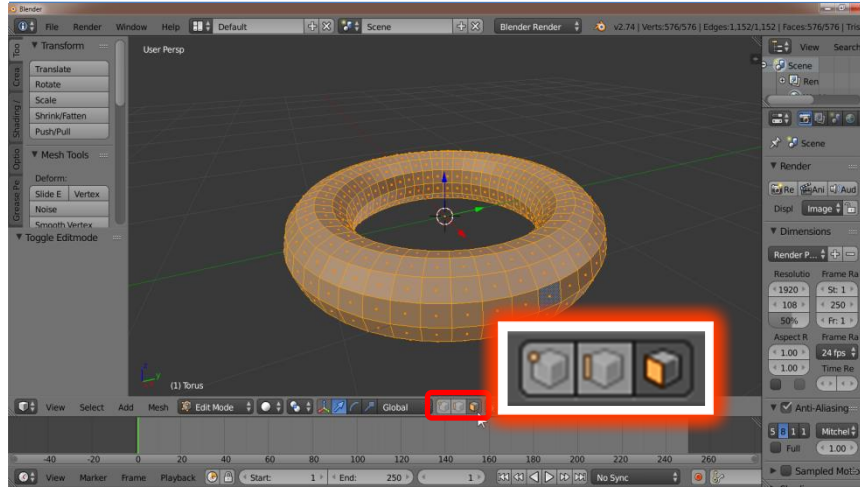
Face select	Mouse 🖱	Actions
	Right click	Select face

Modify object with face selection

Keyboard ⌨	Mouse 🖱	Actions	Transformation	
			Accept	Cancel
G	Move mouse	Grab	Left click	Right click/Esc

Multiple face selection
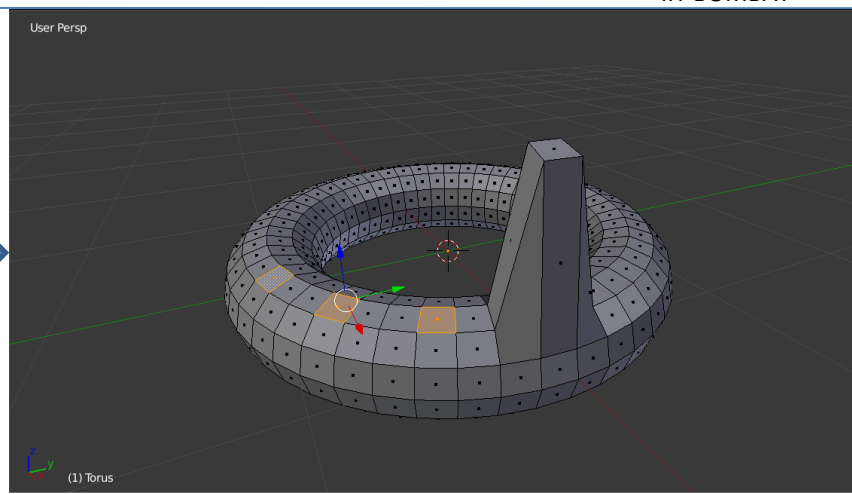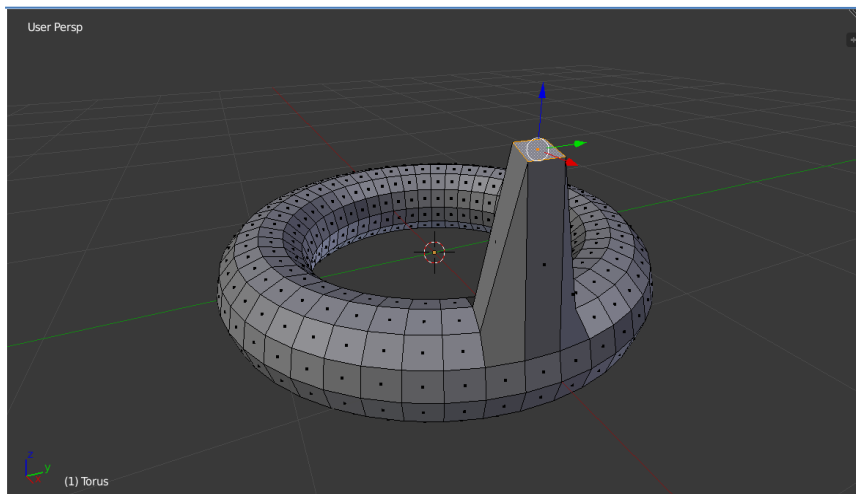
🖮 Keyboard / Mouse 🖱	Actions
Shift + Right click	Select faces

Modify object with multiple face selection

Keyboard ⌨	Mouse 🖱	Actions	Transformation	
			Accept	Cancel
G	Move mouse	Grab	Left click	Right click/Esc

Modify object using basic transformation
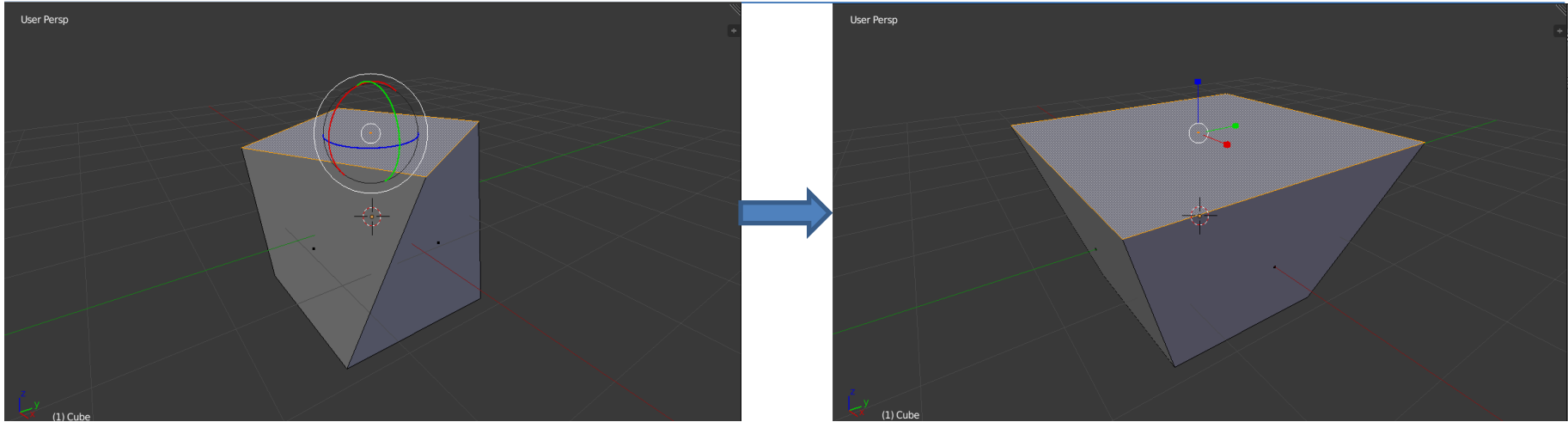
Similarly you can modify the object in edit mode using rotate and scale with multiple vertex, edge or face selection

Next session

Assignment