**Bow and Arrow Game.**

How to:

1. Model a bow, or use the start file given along side this tutorial.
2. Add bones to the top and bottom of the bow and add a string bone.
3. The mesh parented to the rig.
4. Adding constraints to the stretching of the bow.
5. Add animation to the bow now, the bow shall be complete.

Rigging the bow:

1. Start with the “bow\_start.blend” file.
2. Set the 3D cursor to the origin and switch to wire-frame view(Press ‘Z’).
3. Press ‘A’ to open the add menu and add bone.
4. For each node of the wire mesh, extrude a bone from middle of the bow to the top of the string.
5. Duplicate and reflect the bone structure about the origin, to make a complete bone structure.
6. Add a string bone and parent the mesh to the rig. Set parenting to Armature Deform -> Automatic Weights.
7. Create a main bone at the centre of the bow and parent the whole rig to it.
8. Create a bone at the top of the string, that can bend all the other bones with it, using Inverse Kinematics Constraint with target as the armature and the bone as the new top bone of the string.
9. Remove the main bone from being bent along with the other top bone.
10. Use limit distance constraint to move the armature(target) with the string(bone). (There is a small problem with this. Can be ignored as we are not interested much in the 3D modelling)
11. Limit the location of the string to -2.00 as minimum-y and 16.00 as maximum-y
12. Do 8-10 for the bottom part of the bow.
13. Animate the bow, according to desired timeline.