**TEAM**

Team Members:

1. Asla Aboo (Net ID: axa174032)
2. Jingwei Gao (Net ID: jxg172630)
3. Manindra Kumar Anantaneni (Net ID: mxa180038)
4. Mareena George Mekkattil (Net ID: mxm170015)
5. Yu Chuan Lin (Net ID: yxl180081)

Contributions:

1. Asla Aboo
   * Imported these models necessary for visually appealing chemistry lab environment, measured and scaled them to realistic proportions.
     + High-fidelity safety goggles
     + High-fidelity test tubes, beakers, and glass rods
     + High-fidelity Bunsen burner
     + A Flask set
   * Added Interactive Script and Stationary script to these virtual objects:
     + Safety Goggles
     + Flask set
   * Added MenuScript.cs to help enable navigation between scenes
   * Added and attached MeanBeam.cs, MenuUI.cs to ViveController and MainMenu panel respectively to enable ray-casting and selecting the scene for navigation.

1. Jingwei Gao
   * Completed the coding part of the following goals
   * Ability to mix solutions with soluble compounds.
   * Ability to mix solutions with insoluble compounds. by adding different Tags and
   * Scripts to different salts and solution to make the salts soluble/insoluble and the color of solution change/unchange.
   * Scripts to Visual and auditory guidance, Mainly on identifying compounds via the solubility test.

1. Manindra Kumar Anantaneni

* Simulation of chemical reactions for flame test.
* Added the interactive script to the Glassrod, and the flame
* Created the Glassrod.cs, FlameTest.cs, FlameTrain.cs required for the FlameTest.
* The Glassrod changes its material when it collides with the salt, and the flame changes its color based on the salt.
* Added animation, and visual guidance for the flame test

1. Mareena George Mekkattil
   * High-fidelity solutions and unknown compounds.
     + Created salt models using Autodesk Maya.
     + Imported salt model, measured and scaled it to realistic proportions.
     + Separated the salt to 3 different salts
   * Created water particle system to reflect water flowing from faucet.
   * Created solutions using liquid shader.
   * Created Wobble.cs for adding wobbling properties to the solution.
   * Added interactive script to beakers, test tubes and salts.
   * Created three scenes namely – MainMenu, LabLearn, LabTest.unity
   * Created auditory guidance to 3 scenes using Google Text to Speech API. Added audio with the help of <https://soundoftext.com>
   * Visual and auditory guidance on identifying compounds via the color test.
   * Created ColorTest.cs, LabTestAudioControl.cs, MainMenuAudioControl.cs to control the auditory and visual guidance for different scenes
   * Created Canvas for MainMenu
   * Created 3 salt powderparticles and ParticleController.cs for pausing the particlesystem.

1. Yu Chuan Lin
   * Ability to light Bunsen burner flame with lighter.
   * Added the status script to the objects that needed to apply.
   * Created the water/flame particle system and the audio sources.
   * The burner and the water sink can be turn on and off by pressing the grip button which I edited in the Virtual Hand script.
   * Refining and organizing the Virtual environment and the details of object (collider/size)
   * Refining the scripts for lighting up the flame and the water.
   * Add the script for the goggle/vision (don/doff the goggles).
   * Help solving the problem we had on the preliminary prototype.