
Virtual Chemistry Lab

By:- Shikha Singh

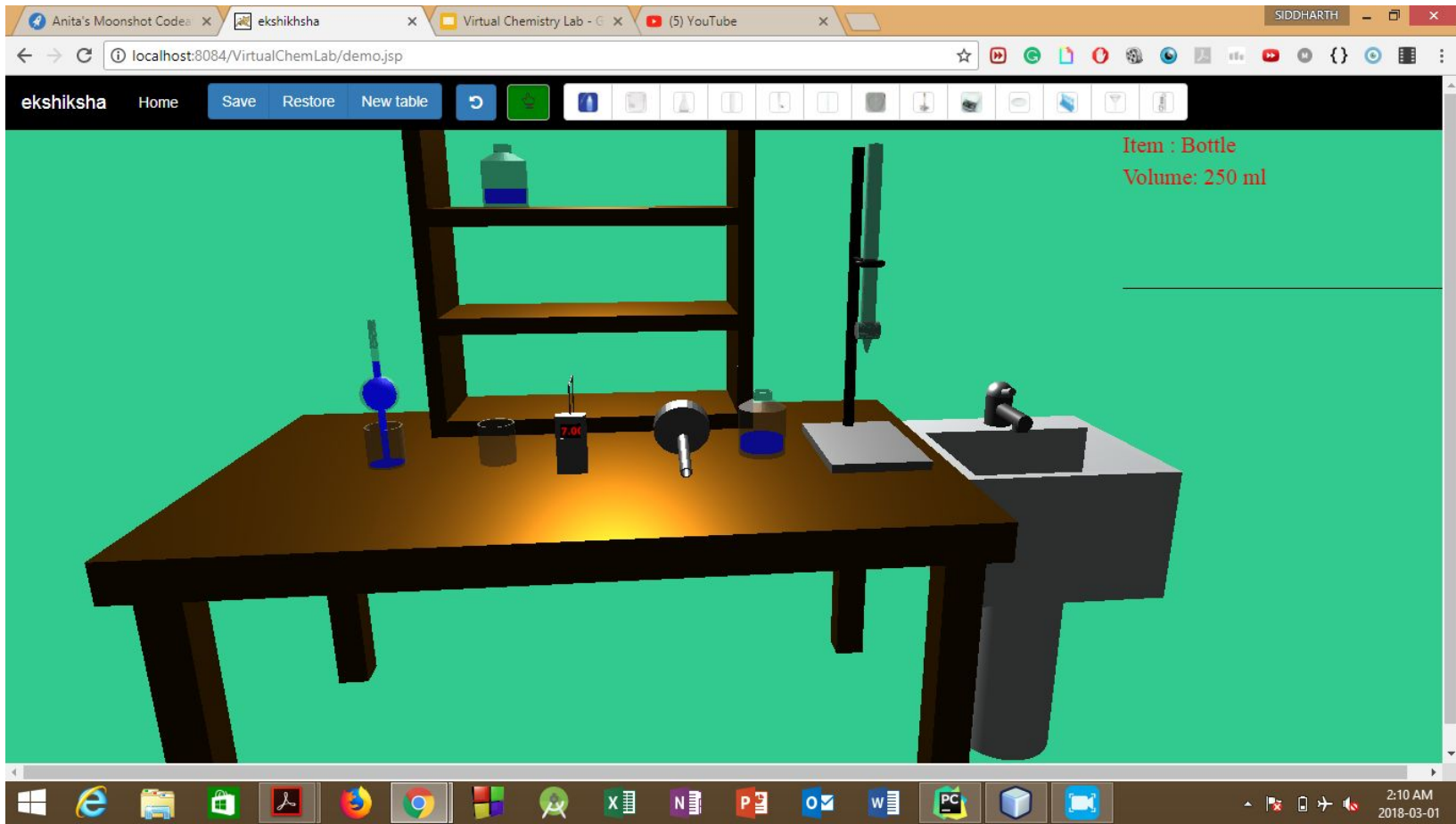
Objective

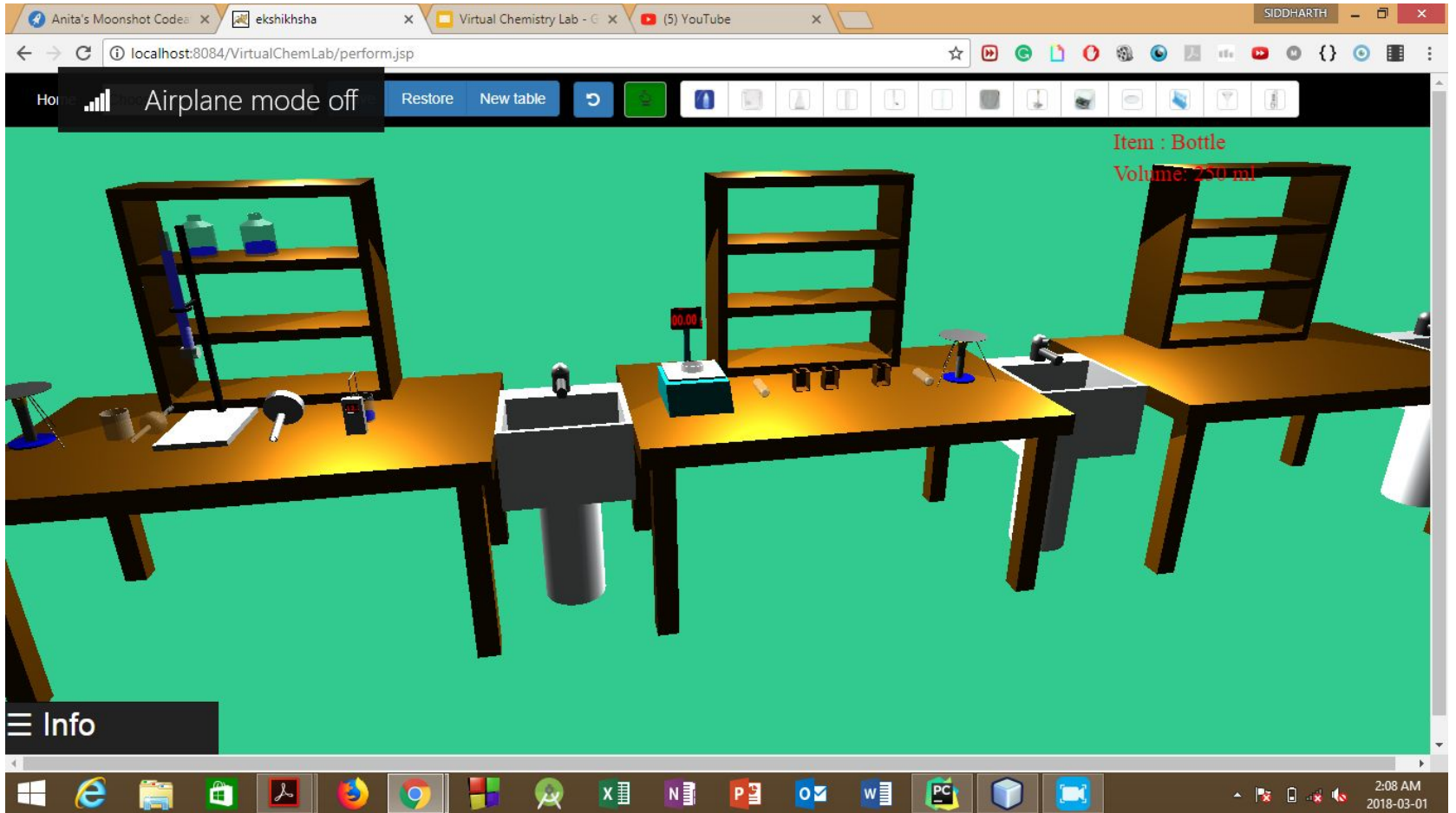
- Chemistry Lab Experiments Concepts in a more efficient manner.
- To bring Chemistry lab to PC.
- To Allow Setting , Performing , Evaluating and Viewing Demo of an Experiment.

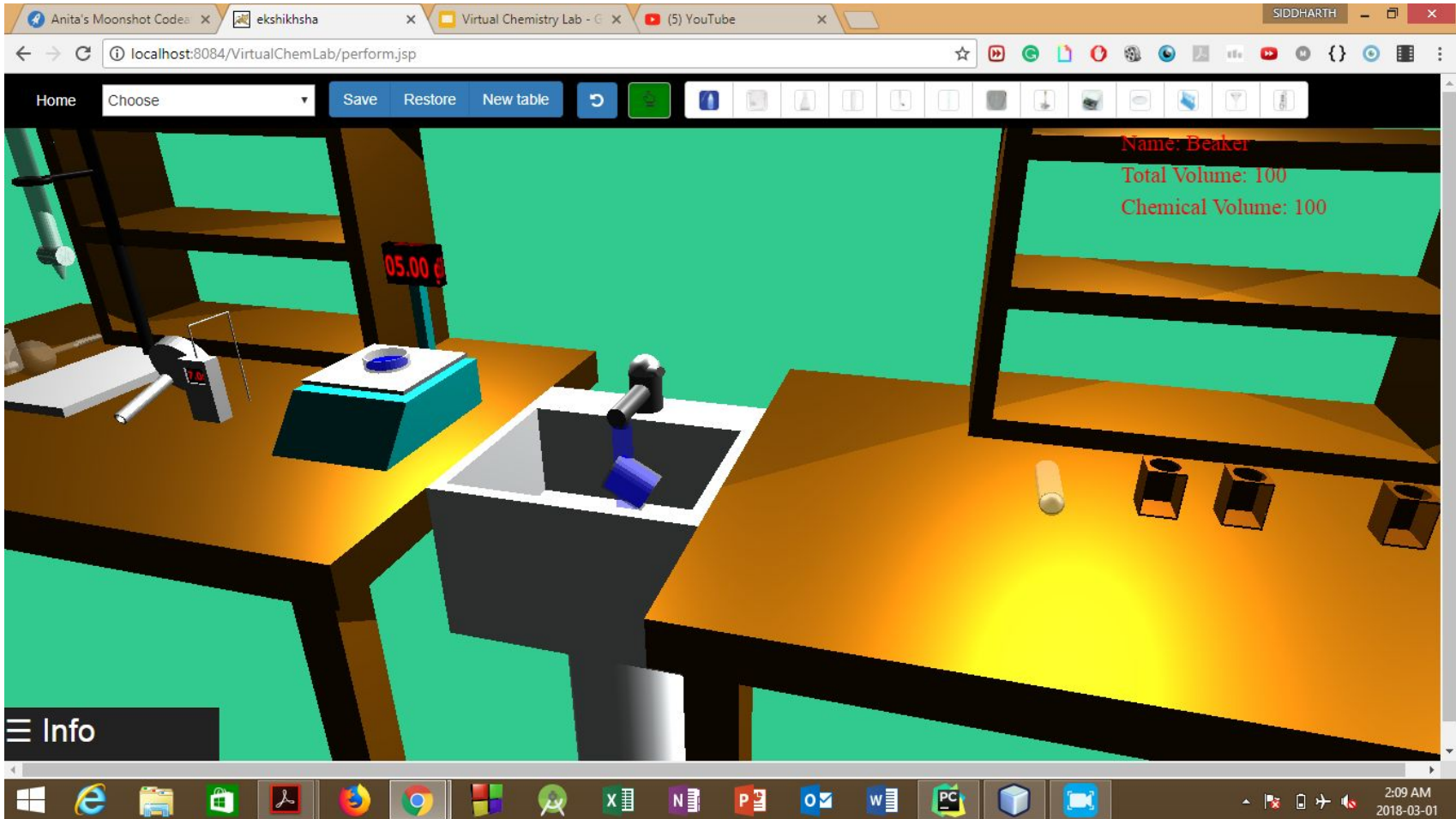
Screen Shot

The screenshot displays a web browser window with the following elements:

- Browser Tabs:** Anita's Moonshot Code, Virtual Chemistry Lab, Virtual Chemistry Lab - G, (5) YouTube.
- Address Bar:** localhost:8084/VirtualChemLab/index.jsp
- Navigation:** Home, About, Start here, VCL Developers.
- User:** Welcome : shikha11 Logout
- Main Content Area (Teal Background):**
 - What do you want to do?** (Central heading)
 - Setup Experiment:** Accompanied by an image of various flasks containing colored liquids (purple, blue, red, green, yellow).
 - Perform Experiment:** Accompanied by an image of a scientist in a lab coat and mask working with glassware.
 - Demo Experiment:** Accompanied by a large blue button with a play icon and the text "Demo".
 - Evaluate Experiment:** Accompanied by an image of a woman looking through a magnifying glass.
- Footer:** Share us@ f @ t (with icons for Facebook, Instagram, and Twitter)
- Taskbar:** Windows taskbar at the bottom showing various application icons and the system clock (2:06 AM, 2018-03-01).







CHALLENGES FACED

- Creating 3D Objects Using three.js
- Implementation of Sucking and Pouring Action of Pippet
- Adding Dynamic tables
- Listing out all chemicals properties
- Save Functionality(Creating and Saving Journal)
- Undo Functionality

Results and Conclusion

- Provided implementation of Lab Equipments , Providing feature to perform an experiment , view demo of an experiment , evaluate an experiment(by viewing demo of what student did) and create new experiments.
- Provided more interactive way for performing and learning Experiments.

Future Scope

- More Equipments , Chemicals and reactions can be added to expand the Virtual Chemistry Lab.
- It may be possible to implement real time Virtual Chemistry Lab where students can perform experiments on different table of same setup and teacher can evaluate in real time.

Thank You
