

# P r o j e c t   V i r



By- Siddharth Pachpor  
Technische Universität Berlin  
Germany



# 'Project Vir'

Significance:

**Vir- "The one who is brave"**

Objective:

**Project Vir is specially designed Virtual Reality application to raise awareness of the safety measures against the Coronavirus pandemic (COVID-19) through an interactive procedure especially for the poor and the daily wage Labourers in the villages of India.**

Target Age group:

**Adult + kids**

# Phase Wise Work Packet Distribution-1

- **Phase 1**

- ✓ Construction of Knowledge\_Room (with Textures)
- ✓ 3d Game Object used :Covid-19 Corona virus, Sanitizer, Mask, Gloves
- ✓ Addition of Point light+ Addition of Google VR support

- **Phase 2**

- ✓ Setting of a full functional Gaze System
- ✓ Addition of Gaze functionality (Output through : Unity debug Console)

# Phase Wise Work Packet Distribution-2

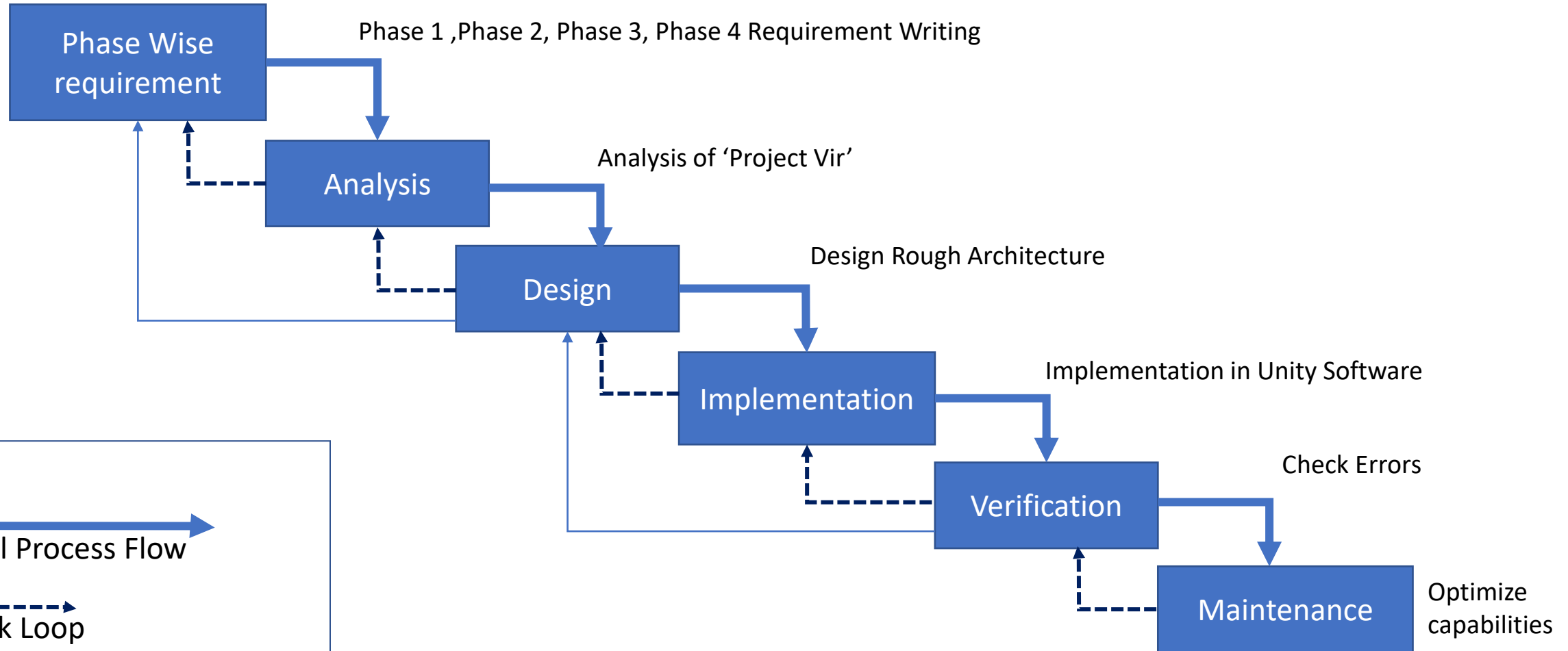
- **Phase 3**

- ✓ Creation of Gazeable UI
- ✓ Addition of 'Teleport' and 'Walk' locomotion systems
- ✓ Implementation of safety measures buttons: Safety\_measure1, Safety\_measure2, Safety\_measure3

- **Phase 4**

- ✓ Added instantiation of Mask , Hand Sanitizer, Gloves on Floor of knowledge \_Room
- ✓ Implemented Translation feature for Parent Game object
- ✓ Connection of both the instantiation and transformation to the UI panel.

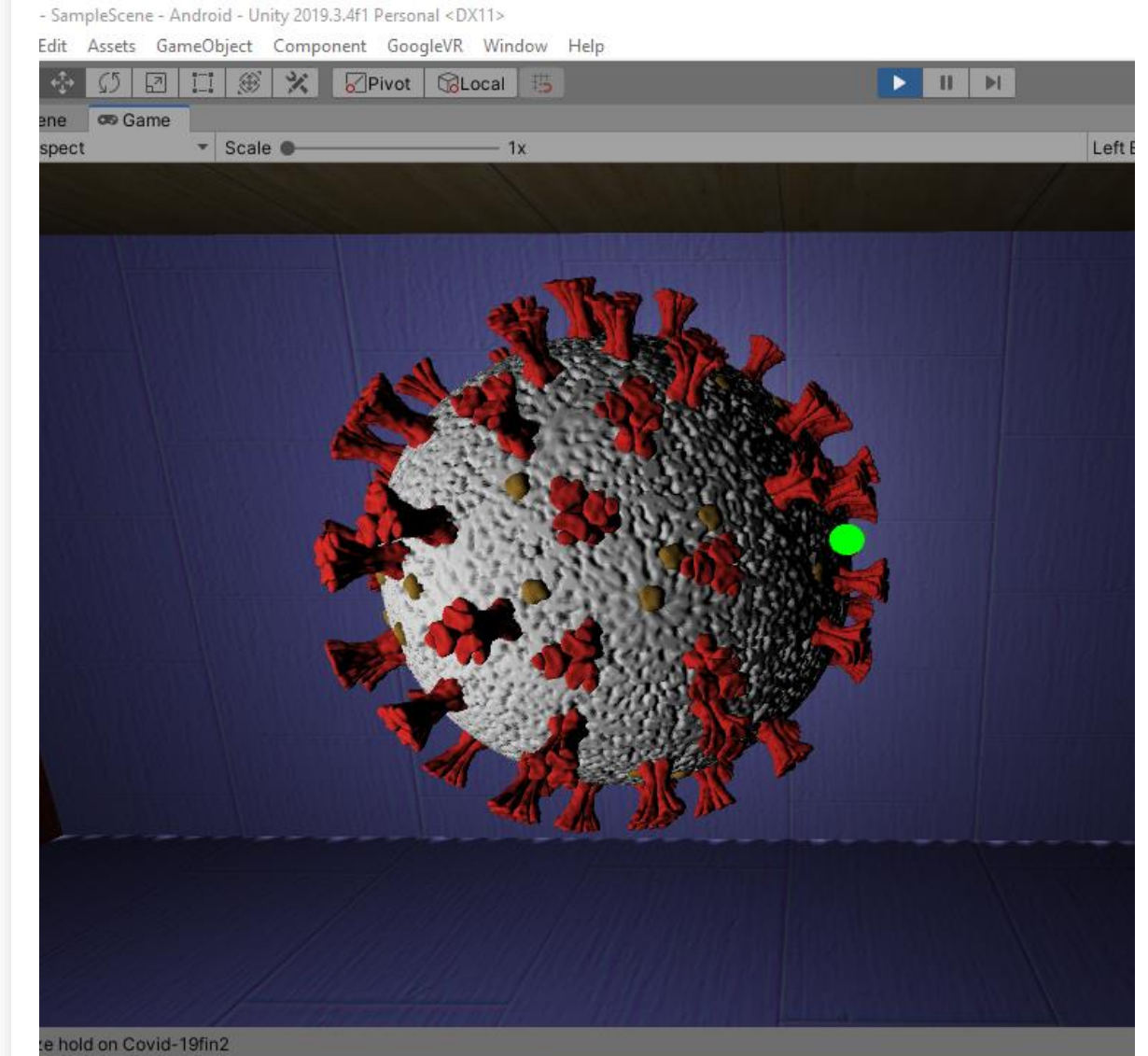
# Lifecycle Model : Waterfall model with Royce's Iterative Feedback



# How Project Vir Works

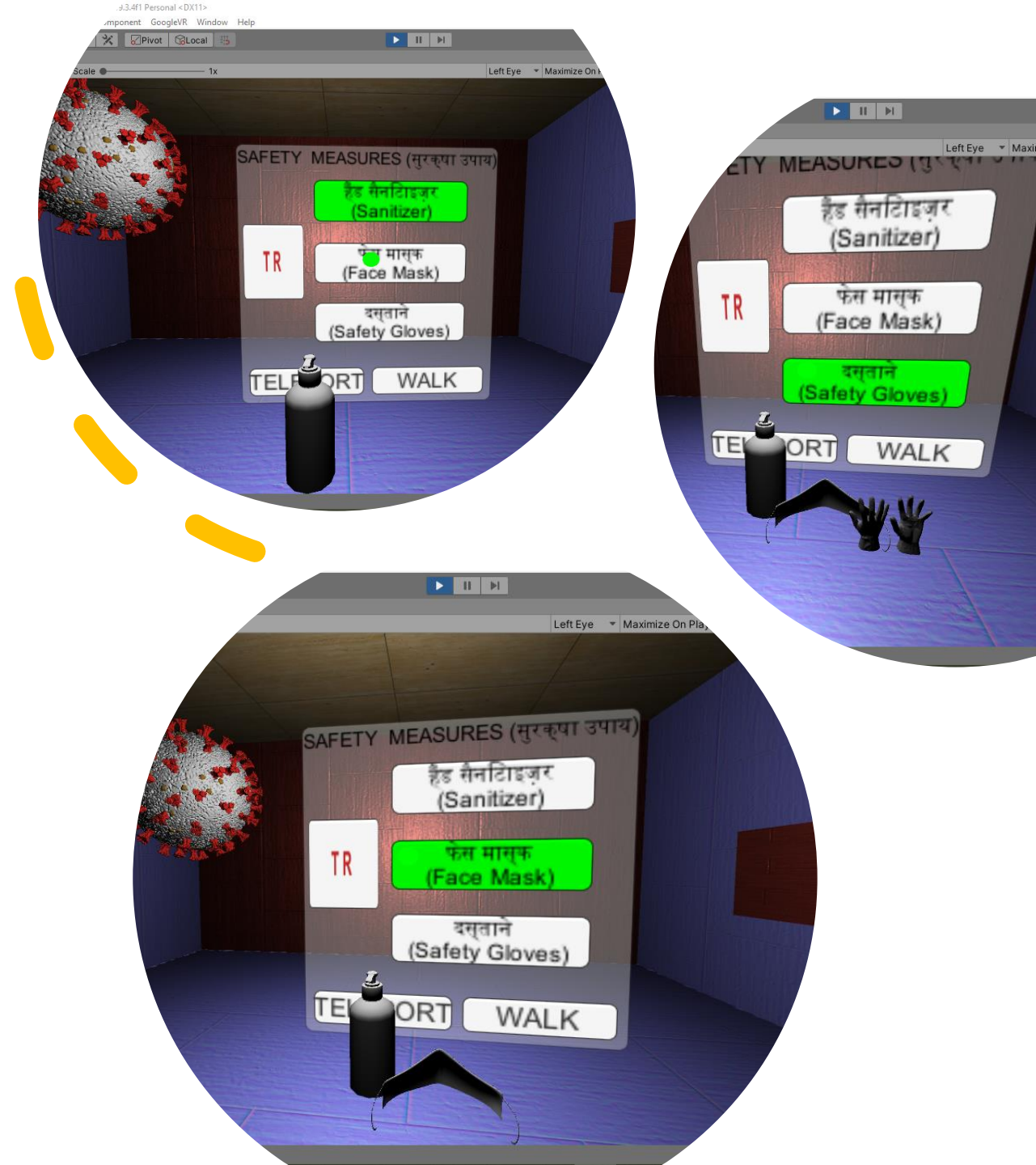
- Step 1: Wear the Google VR (For Ex. Google Cardboard)
- Step 2: Select the Teleport or Walk button on the UI panel to look around the Knowledge\_Room

**Result:** This initiates user's cognitive skills to visualize the Game Objects in the room especially the Covid-19 virus up close



# How Project Vir Works

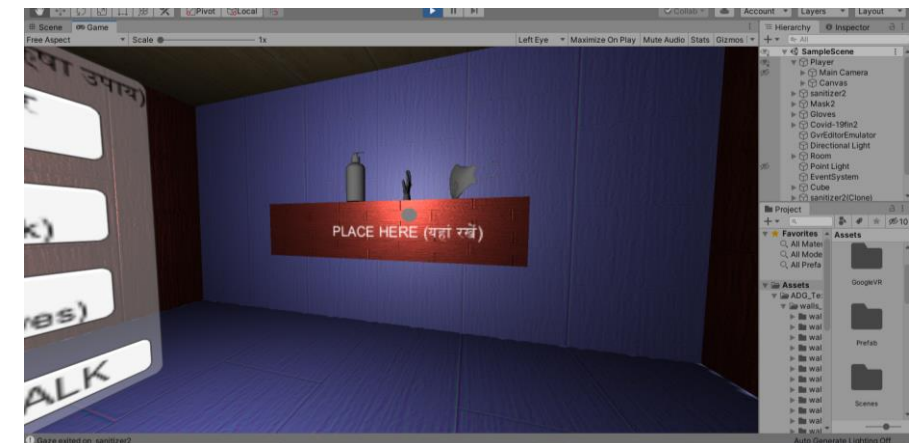
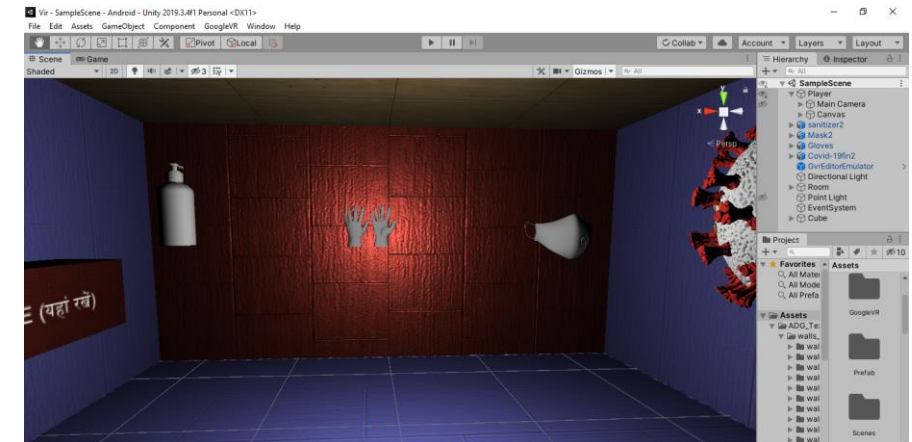
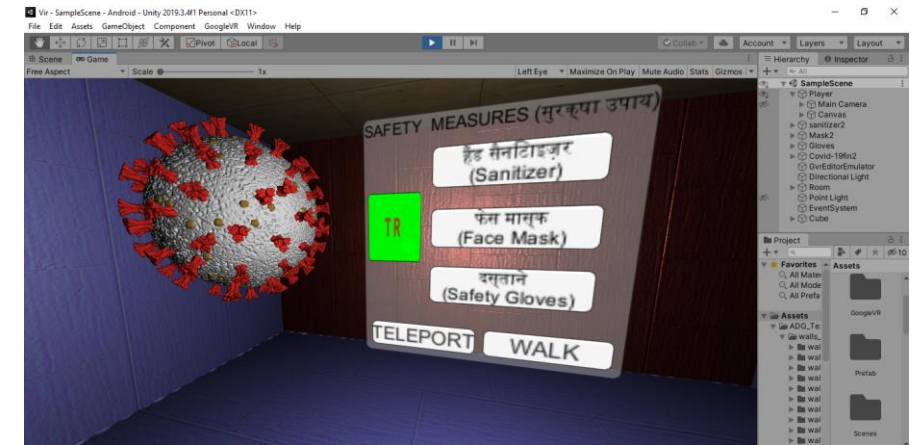
- Step 3: Select the three safety Measures on the UI Panel and instantiate on the floor one by one
- **Result** : This strengthens user's control. It brings awareness as to what are three most important safety measures i.e. Usage of masks, gloves and hand sanitizer against the virus





# How Project Vir Works

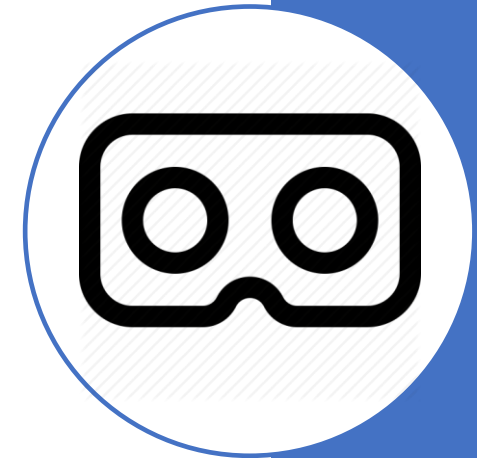
- Step 4: Select the TR button and place the three hanging safety measures Game objects i.e. Mask, gloves and Hand Sanitizer on the red wooden ramp with “Place Here” sticker.
- **Result:** This enables the user to understand memorize the significance of the safety measures to fight against the Coronavirus (Covid-19 d) in a quick and an interactive process



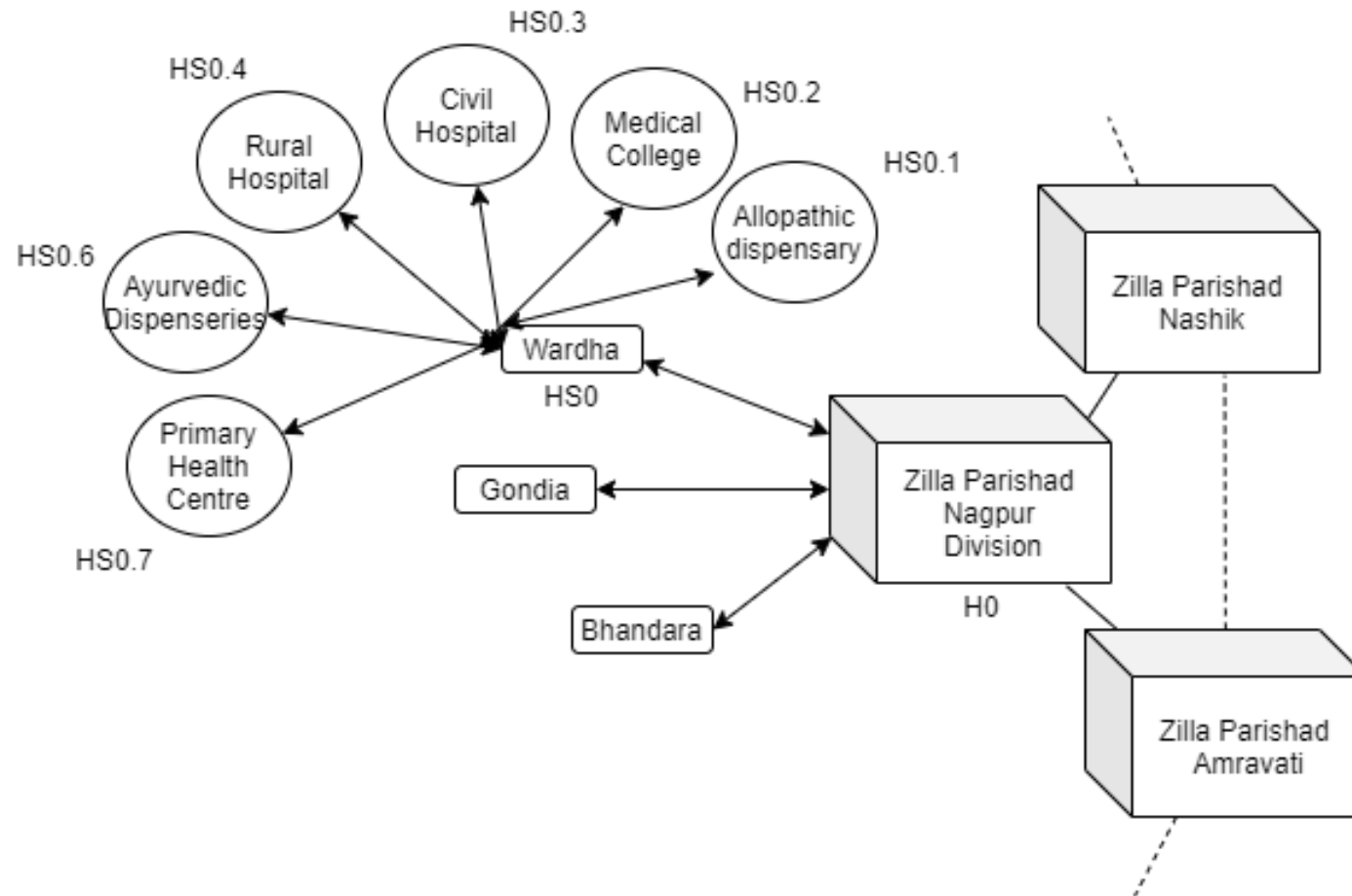


# Future Prospects

- Addition of Multiple local languages on in UI panel
- Reduction of application memory size for Project Vir
- Placing of Multiple Google Cardboard devices at Awareness hotspots in villages and towns in India
- Training of virtual reality development in remote locations in India through Project Vir
- Collaboration with existing Aarogya Setu Application



# Demo Awareness Hotspot Implementation Map Proposal\*



## Key Facts:

State: Maharashtra

H0: Main Zilla Parishad (Ex. NAGPUR)

HS0: District (Ex. Wardha)

HS0.1-HS0.7:

Hotspot for Project Vir(Google VR Headsets installed for free use)

# References

1. <https://sketchfab.com/3d-models/coronavirus-1dc77e5e1cf747d48d23f2c867d6e6a8>
2. <https://sketchfab.com/3d-models/game-ready-disinfectant-hand-sanitizer-bottle-2be81dcdbd5824aa6a5c6f596ca7c9a63>
3. Ruparelia, Nayan. (2010). Software development lifecycle models. ACM SIGSOFT Software Engineering Notes. 35. 8-13. 10.1145/1764810.1764814.
4. [https://www.iconfinder.com/icons/1413969/cardboard\\_gear\\_vr\\_goggles\\_oculus\\_virtual\\_reality\\_goggles\\_vr\\_icon](https://www.iconfinder.com/icons/1413969/cardboard_gear_vr_goggles_oculus_virtual_reality_goggles_vr_icon)

