**Development of Virtual lab :Round 3 -Lab Manual - Template (Worksheet)**

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ROUND 2

**1. Aim and Objective**

**To find the image distance for varrying object distances and show the nature of image using concave and convex lens.**

**2. Theory**

Lens:-

The lens is a combination of two or more simple glasses that converges or diverges the ray of light.Two main types of lenses are:-

(i) **Convex lens**

**(ii) Concave lens**

1. Convex lens-

It converges the ray of light so it is also called converging lens.These lenses are thicker at middle and thinner at the edges.

(ii) Concave lens-

It diverges the ray of light so it is also called diverging lens. These are thnner at middle and thicker at the edges.

LENS FORMULA :-

**(1÷v)-(1÷u)=1÷f**

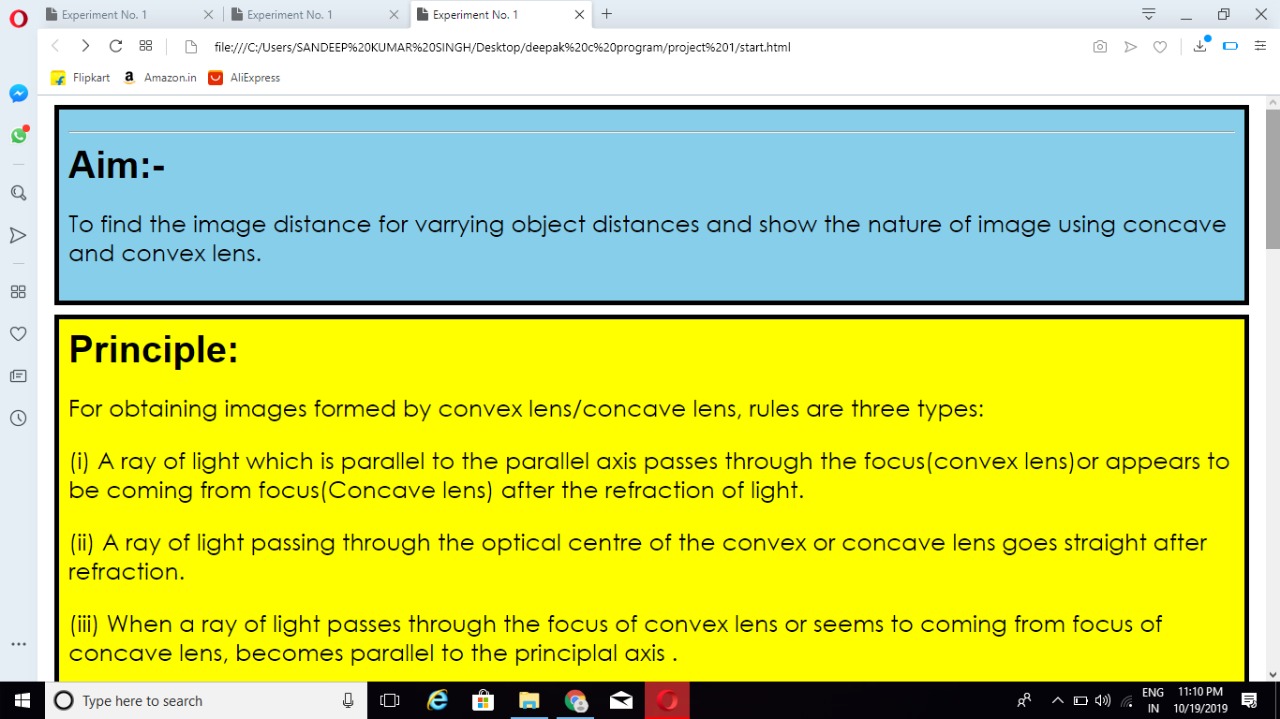
**(1÷v)=(1÷u)+(1÷f)**

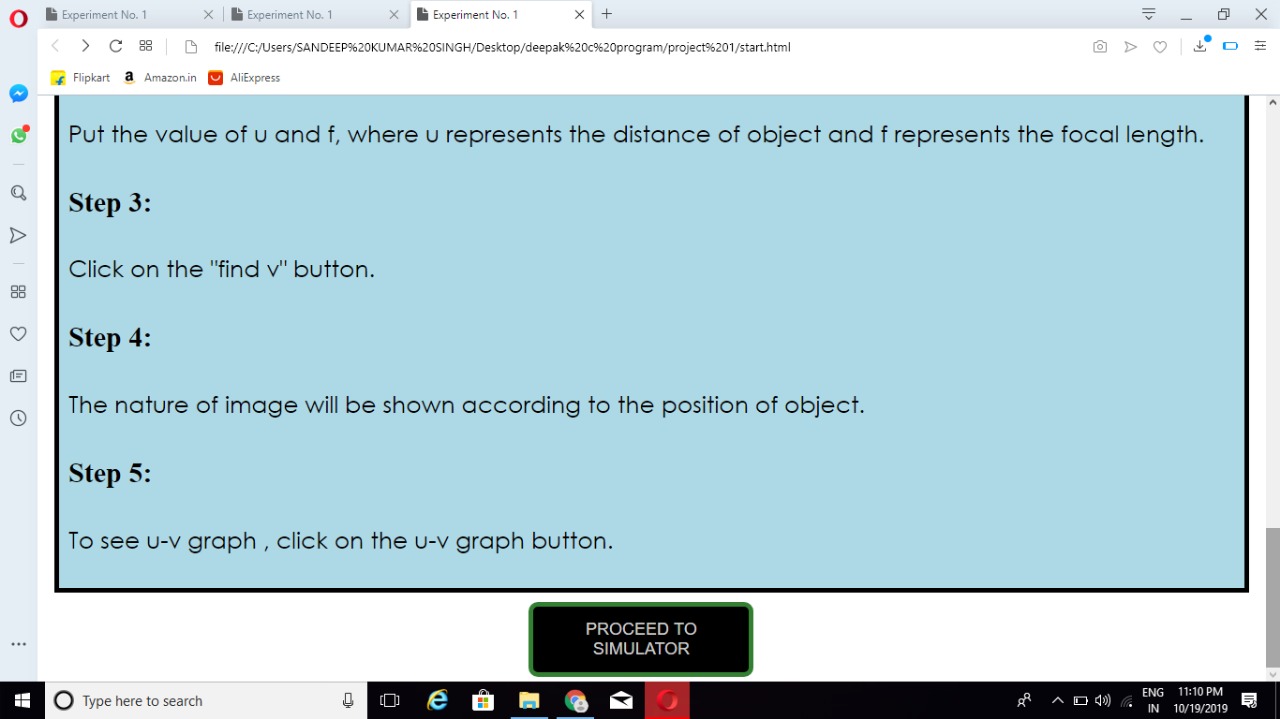
**(1÷v)=(u+f)÷(uf)**

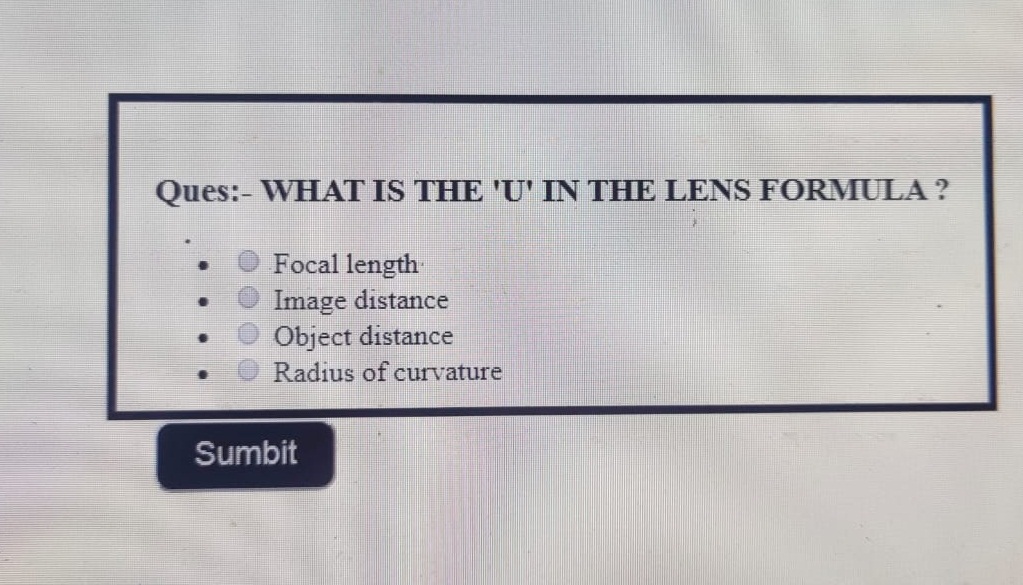
**v=(u\*f)÷(u+f)**

**3.PROCEDURE**

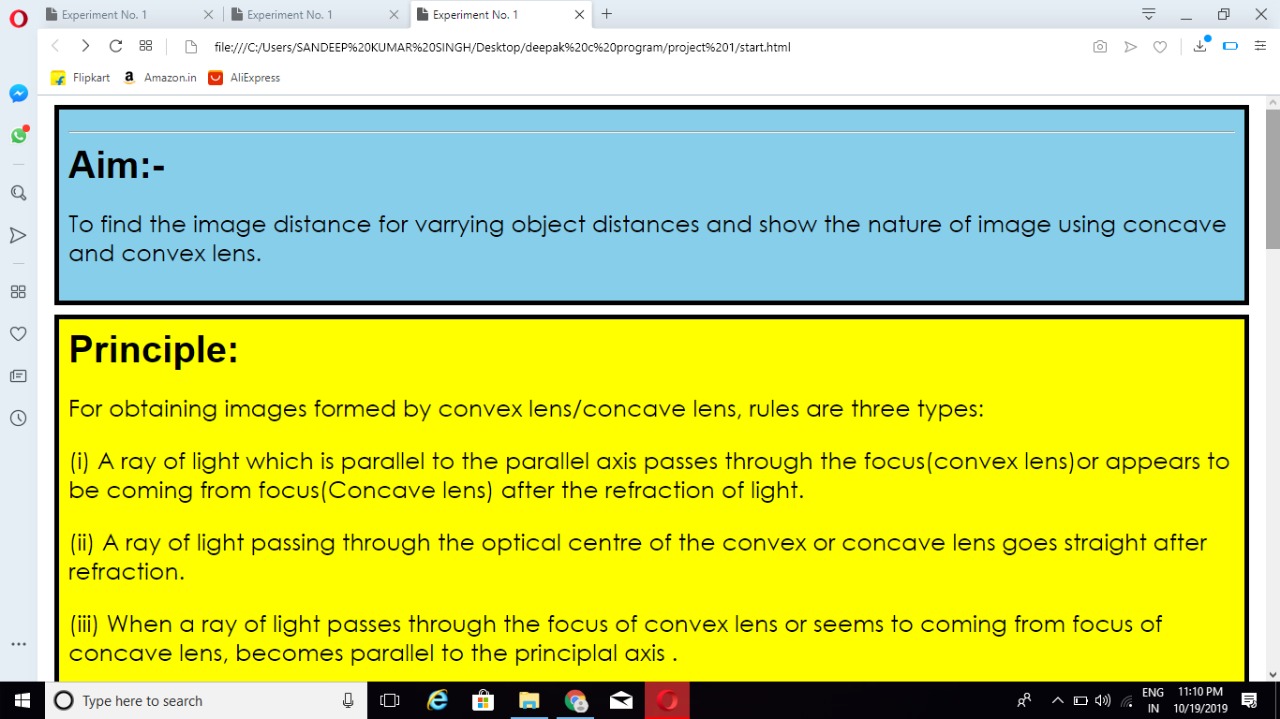
step 1 : First of all go to the start.html("also allow blocked content if you are using Internet Explorer")



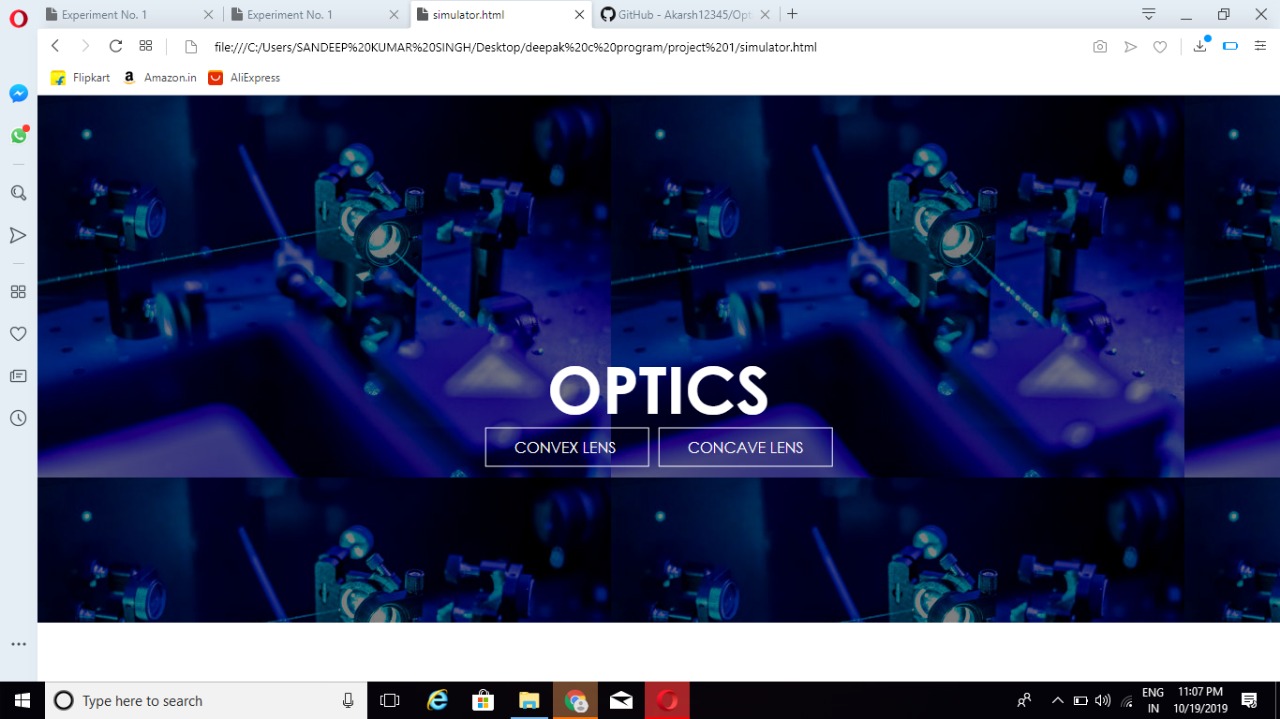
step 2 : At the end of webpage there is button who redirect to the prequestion.html

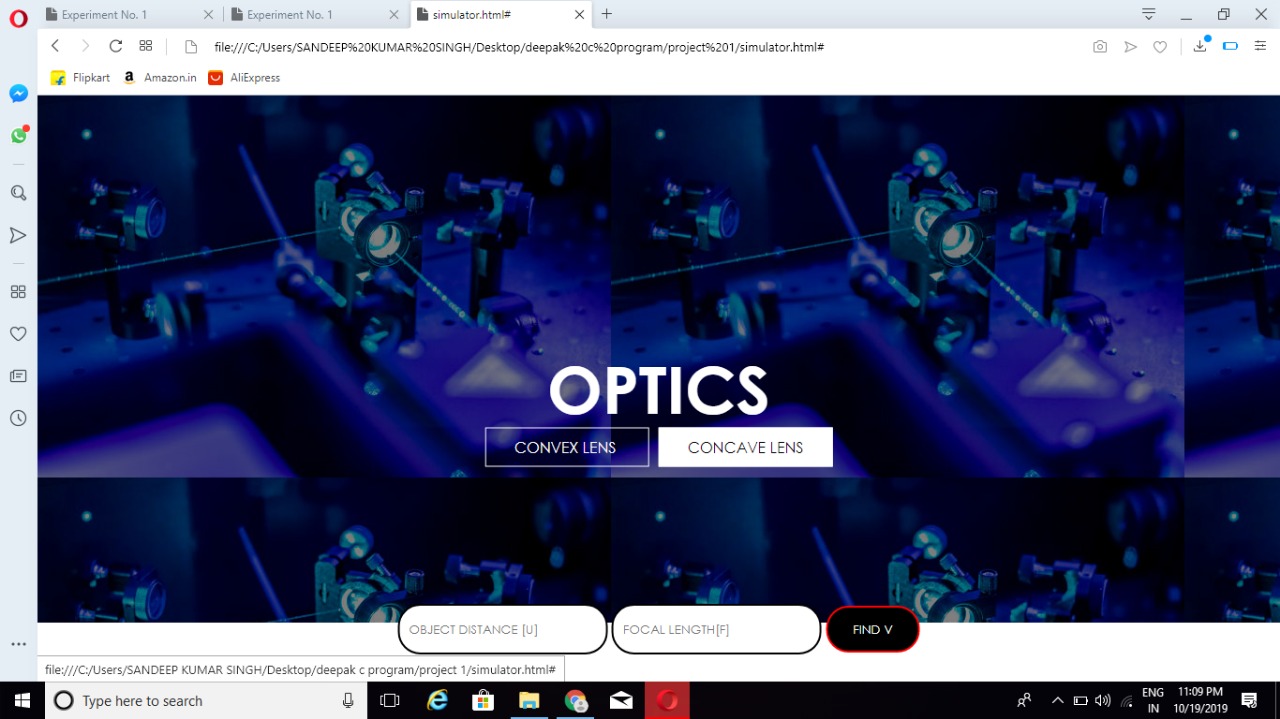


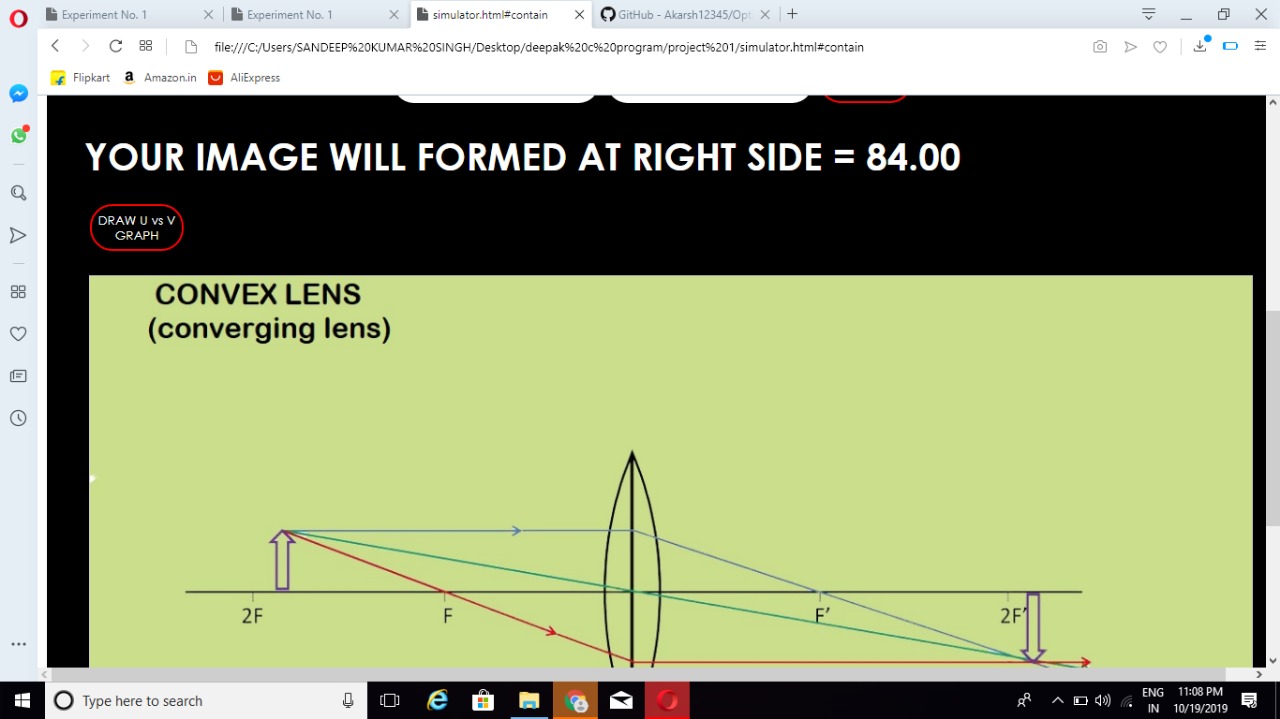
step 3 : a.If you give the wrong answer you go to the start.html



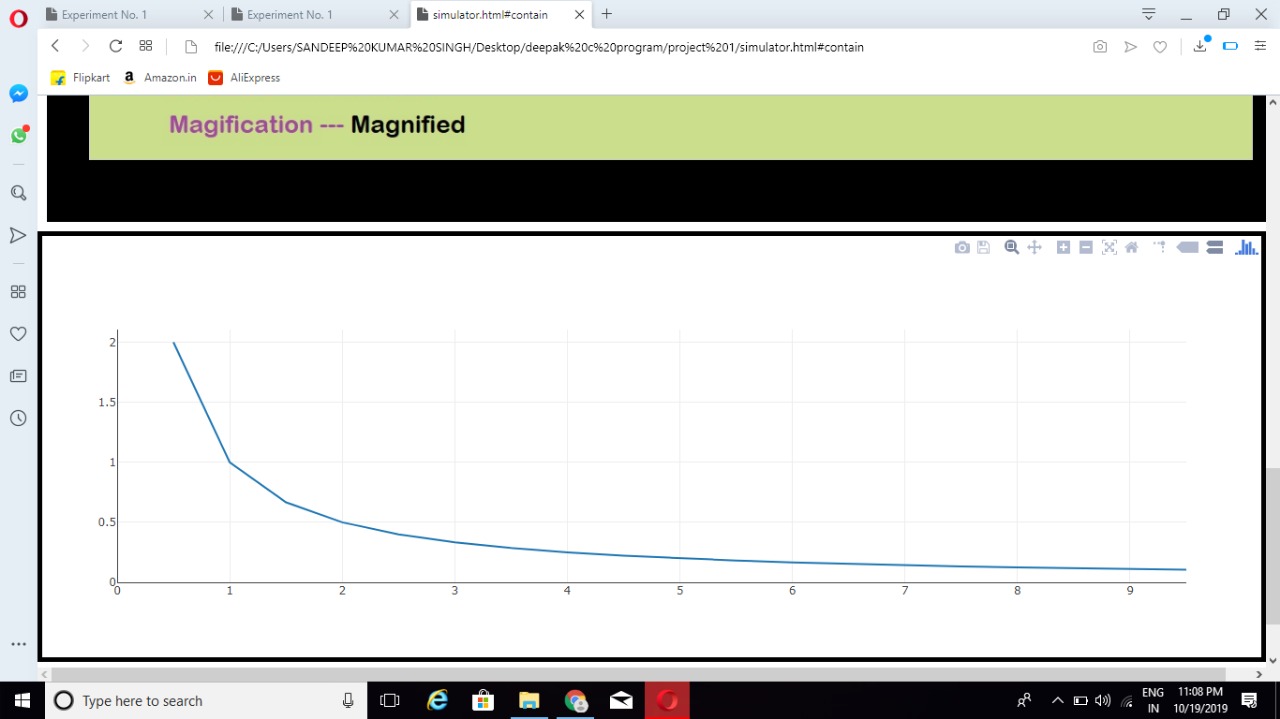
b. If you give the right answer it direct to the simulator.html



step 4 : So simulator work is written in the procedure of home page.



step 5 : At the end when the graph is showing so after some point there is button "READY FOR QUIZ"



step 6 : Your experiment completed.

**4.Pre test Assessments**

1. **Ques**:- WHAT IS THE 'U' IN THE LENS FORMULA ?
   1. Focal length
   2. Image distance
   3. **Object distance (Correct answer )**
   4. Radius of curvature

**5.Post test Assessments**

Question 1:-**What is the Focal length of convex lens ?**

option1: **Positive**

option2:-Negative

option3:-Zero

option4:-None of the above.

Question 2**:-What is the Focal length of concave lens ?**

option1: Positive

option2:**Negative**

option3:Zero

option4:None of the above".

Question 3:**What is the Nature of concave lens ?**

option1: Converging

option2:**Diverging.**

option3:Don't know

option4:-None of the above.

Question 4:**What is the Nature of convex lens ?**

option1: **Converging**

option2:Diverging.

option3:Don't know

option4:-None of the above