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V I S I O N

The project made us understand the universe and its intricacies by studying different astrophysical objects and related phenomena and understanding how locations and distances are measured on the cosmic scale. Also, see how Newton's two-body problem produces the path of the universe's massive binary stars. Towards the end, we saw how it all began.

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Essential Astronomy

This includes the celestial sphere, coordinate systems, time systems, and retrograde motion. As we obtain observational data in EM waves, it's vital to know about the spectra, magnitude scales, and color index. We will get introduction to common jargons of Astronomy for later use.

Binary System

Binary stars comprise most of the stars that we see in the night sky. A true binary is a pair of stars bound together by gravity. We saw the different kinds of binary systems and their properties and a similar pattern for the galaxies.

Stellar Evolution

We understand how stars evolve in their later ages and understand them through H-R diagrams analyzing the stars on the main sequence: separately studying the low mass stars because of their varied properties.

Celestial Mechanics

We learned about stellar spectral classes (O,B,A,F,G,K,M), and HR Diagrams help us understand the evolution of a star. After that, we will learn about celestial mechanics, which governs how these planets and stars move through space under the influence of the gravitational field.

Galaxies

We learned about the different shapes of galaxies and how they are classified, galactic evolution, and interaction with each other, and if intergalactic travel is possible or not. Then we dug deep into our galaxy Milky Way. While sharing some interesting facts with each other.

Cosmology

We studied Cosmology and its application in describing the cosmos. We ended the project by studying the beginning of the Universe. How all of it began from the Big Bang and inflation resulted into what we see today alongwith the fate of the Universe.