Session 2

1. We first started with discussing the celestial coordinate system:
    - Alt Az system
    - Elliptical coordinates
    - Ecliptic coordinates
    - Galactic system
    - Super Galactic System
2. Then we discussed the theories of evolution of the universe.
3. Big Bang theory: Everything has originated from a singularity. This singularity possessed infinite density and was incredibly hot. It also states that the universe is expanding and cooling simultaneously.
4. During our discussion, we explored the timeline following the Big Bang and delved into the formation of key particles like neutrons, electrons, quarks, and protons.
5. Then we discussed the steady state theory, which says that the universe has always been and will always be, and it's expanding and new galaxies are formed in the voids that are created.
6. Then we discussed the pulsating theory, which states that the universe is pulsating. Currently, it is in an expansion state and there will be a time when it will contract.
7. Then our discussion took us to the life cycle of stars.
8. An average star (less mass) first starts as a protostar, then it goes onto the main sequence, which is usually longer than that of massive stars. Then it becomes a red giant, then a planetary nebula, and when it has burnt all its fuel, it goes on to become a white dwarf.
9. A massive star starts as a stellar nebula, then a protostar, then it goes on to its main sequence. Later it becomes a red supergiant. Lastly, it goes on to become a neutron star or a black hole depending on the Chandrasekhar limit.