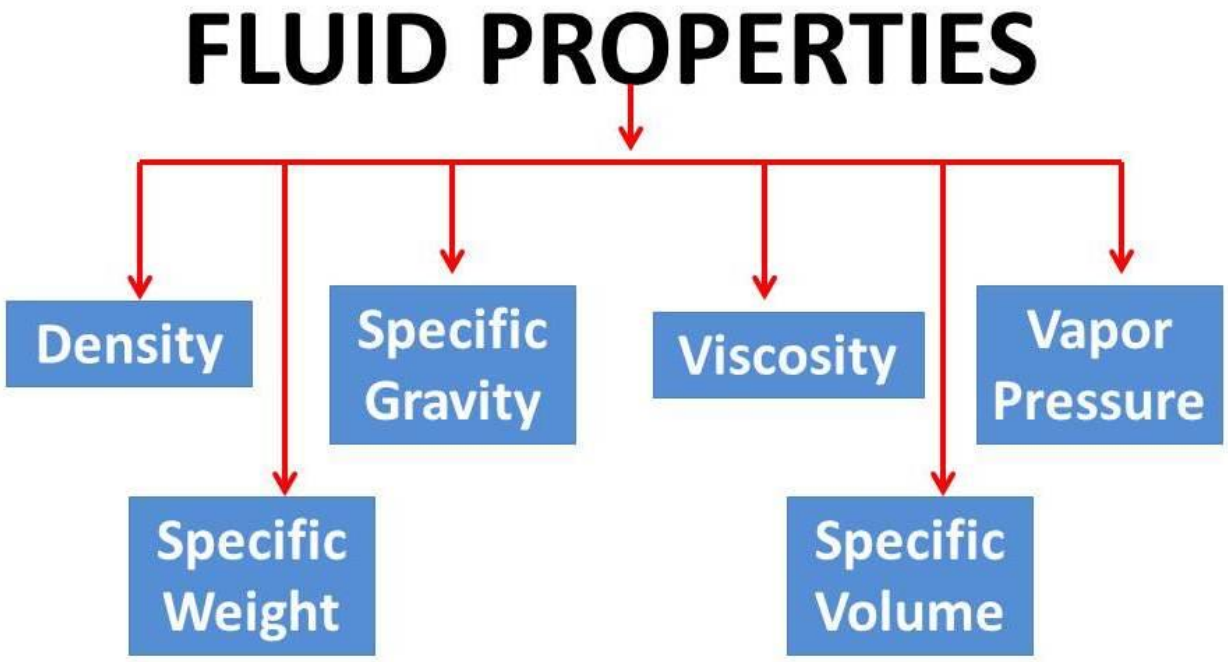
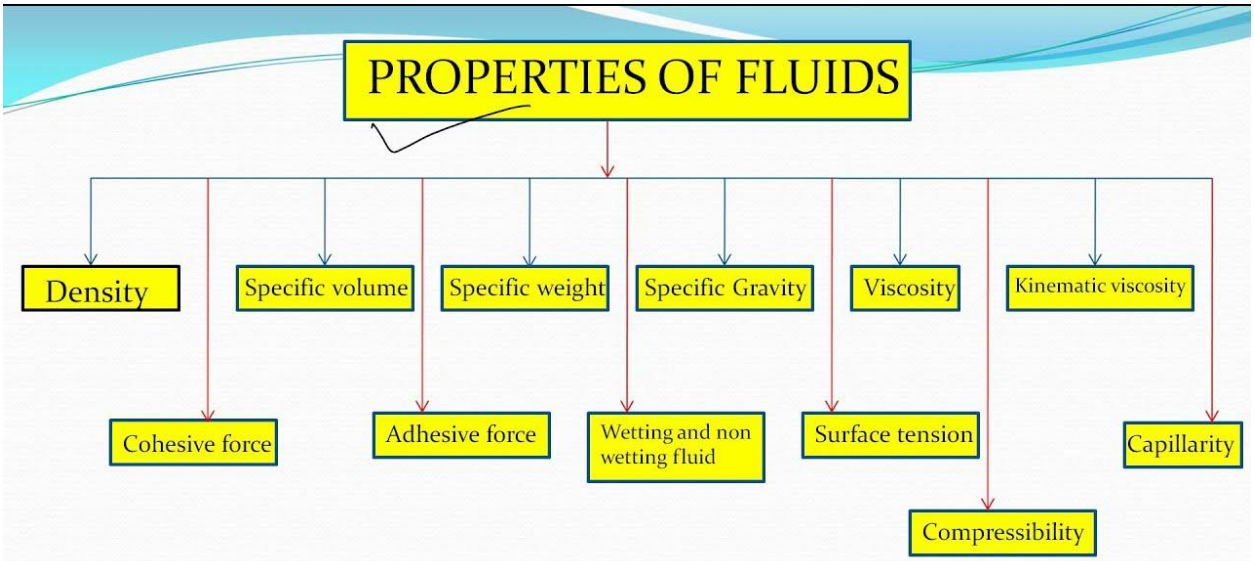

FLUID PROPERTIES
Density
Specific Weight
Specific Gravity
Viscosity
Specific Volume
Vapor Pressure



A fluid has a definite characteristics which define its physical behavior and these characteristics are known as **the properties of the fluids**.

Each property of the fluid has its own characteristics which is used while analyzing the fluid flow problems.

1. WHAT IS FLUID?

- Fluid is a substance that is capable of flowing. It has no definite shape of its own. It assumes the shape of its container.
- Both liquids and gases are fluids.
- Examples of fluids are :
  - i. water
  - ii. milk
  - iii. kerosene
  - iv. petrol
  - v. emulsions etc.

Properties of fluid

i) **Density:** Density is defined as ratio of the mass of a liquid to its volume.
Density : mass of fluid /volume of fluid
$\rho = m/v$

ii) Specific weight: weight of liquid per unit volume
$w = \rho g$

iii)Specific volume: it is defined as volume of liquid per unit mass.
Sp. Volume : volume of fluid/mass of fluid