Alloy:

• Has metallic character,
• Consists of two or more elements (not pure)
• At least one of them is metal
Solution: homogenous mixture of two or more atoms or molecules

Solution is generally liquid ex: Brine (Water + Salt)
Solution may be also solid!.. (ex: Nickel in Copper)

Solid Solution!..
Solving mechanism of a solid

- In crystal structure there are some empty volume, not occupied by atoms.
- Solute atoms can occupy this small volumes – This structure is both crystal structure (solid) and solution, ie solid solution
Phase Diagram of a two-component System
Ag-Au Phase Diagram

- Liquid
- FCC, alpha phase

Temperature (°C):
- 961
- 1063

Composition (Atomic Percent):
- Ag
- Au