2. Design a flow chart to help you sort compounds into the above 7 categories. I'll start you off:

Other thoughts to consider:
1. Is it soluble?
2. Does it have –COOH?
3. Does it have –NH₂?
4. Is it an acid?

Is the compound an ionic compound or a covalent compound?

Ionic

Is it Soluble

Yes

Yes

Strong acid, Weak electrolyte

No

Strong base, Strong electrolyte

Insoluble

Covalent

Is it an acid?

Yes

Is it a weak acid (–COOH)?

Yes

Weak Acid, Weak electrolyte

No

Strong acid, Strong electrolyte

Is it a weak base (–NH₂)?

Yes

Weak base, Weak electrolyte

No

Strong base, Strong electrolyte

Is the compound soluble in water?

Yes

Nonelectrolyte

No

Insoluble

WTF
2. Design a flow chart to help you sort compounds into the above 7 categories. I’ll start you off:

Other thoughts to consider:
1. Is it soluble?
2. Does it have \(-\text{COOH}\)?
3. Does it have \(-\text{NH}_2\)?
4. Is it an acid?

Is the compound an ionic compound or a covalent compound?

Covalent:
- HCl, CH₃CH₂OH, CH₃COOH, C₆H₁₂O₆, H₂S, H₂CO₃, H₂SO₄, HCOOH, NH₃

Ionic:
- NaCl, AgCl, AgNO₃, Fe(CH₃COO)₃, NaOH, Fe(OH)₃, CaCO₃, NH₄NO₃, Li₃PO₄, LiOH

Soluble Strong Electrolytes:
- NaCl, AgNO₃, Fe(CH₃COO)₃, NaOH, NH₄NO₃, Li₃PO₄, LiOH

Also strong bases:
- NaOH, LiOH

Insoluble
- AgCl, Fe(OH)₃, CaCO₃

Weak Electrolytes:
- CH₃COOH, H₂S, H₂CO₃, HCOOH, NH₃

Non Electrolytes:
- CH₃CH₂OH, C₆H₁₂O₆

Strong electrolytes and strong acids:
- HCl, H₂SO₄

Weak acid:
- CH₃COOH, H₂S, H₂CO₃, HCOOH

Weak base:
- NH₃