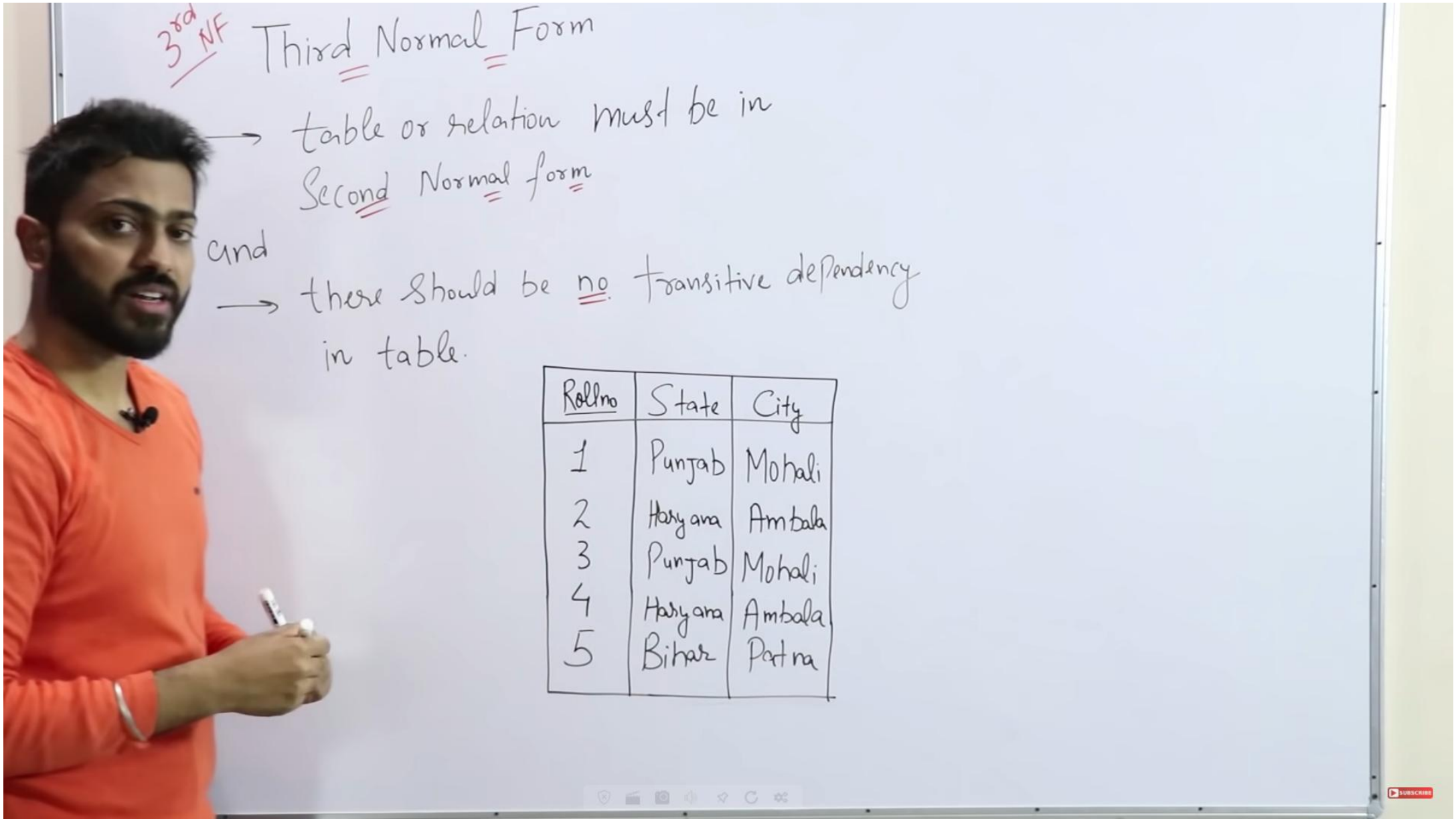
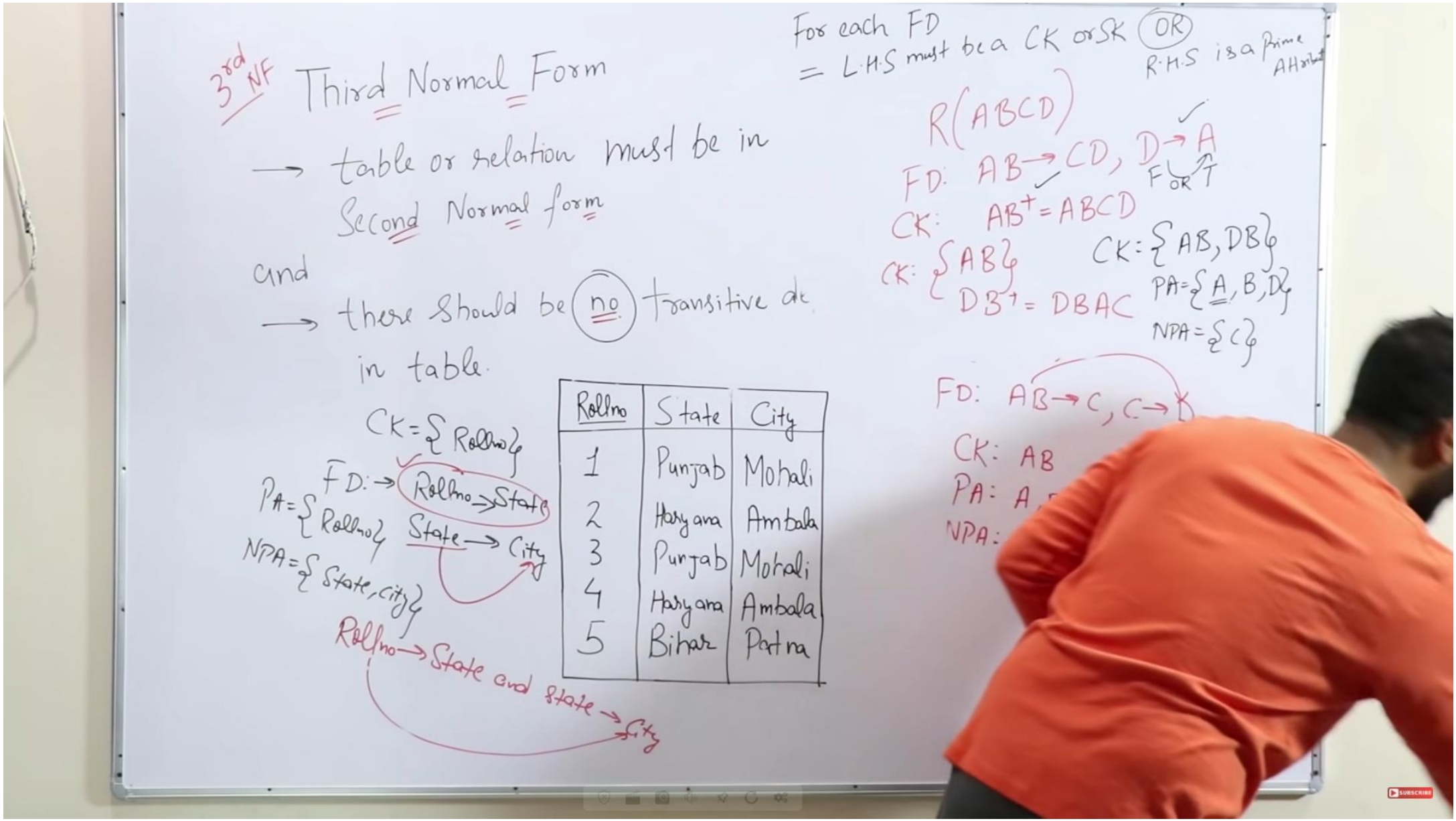

3rd NF Third Normal Form
→ table or relation must be in Second Normal form
and
→ there should be no transitive dependency in table.
Rollno | State | City
1 | Punjab | Mohali
2 | Haryana | Ambala
3 | Punjab | Mohali
4 | Haryana | Ambala
5 | Bihar | Patna


3rd NF Third Normal Form
→ table or relation must be in Second Normal form
and
→ there should be no transitive de in table.
CK = { Rollno }
FD: → Rollno → State
PA = { Rollno }
State → City
NPA = { State, city }
Rollno → State and State → City
Rollno | State | City
1 | Punjab | Mohali
2 | Haryana | Ambala
3 | Punjab | Mohali
4 | Haryana | Ambala
5 | Bihar | Patna
For each FD
= L.H.S must be a CK or SK OR R.H.S is a Prime Attribute
R(ABCD)
FD: AB → CD, D → A
CK: AB+ = ABCD
CK: { AB }
DB+ = DBAC
CK: { AB, DB }
PA = { A, B, D }
NPA = { C }
FD: AB → C, C → D
CK: AB
PA: A
NPA:

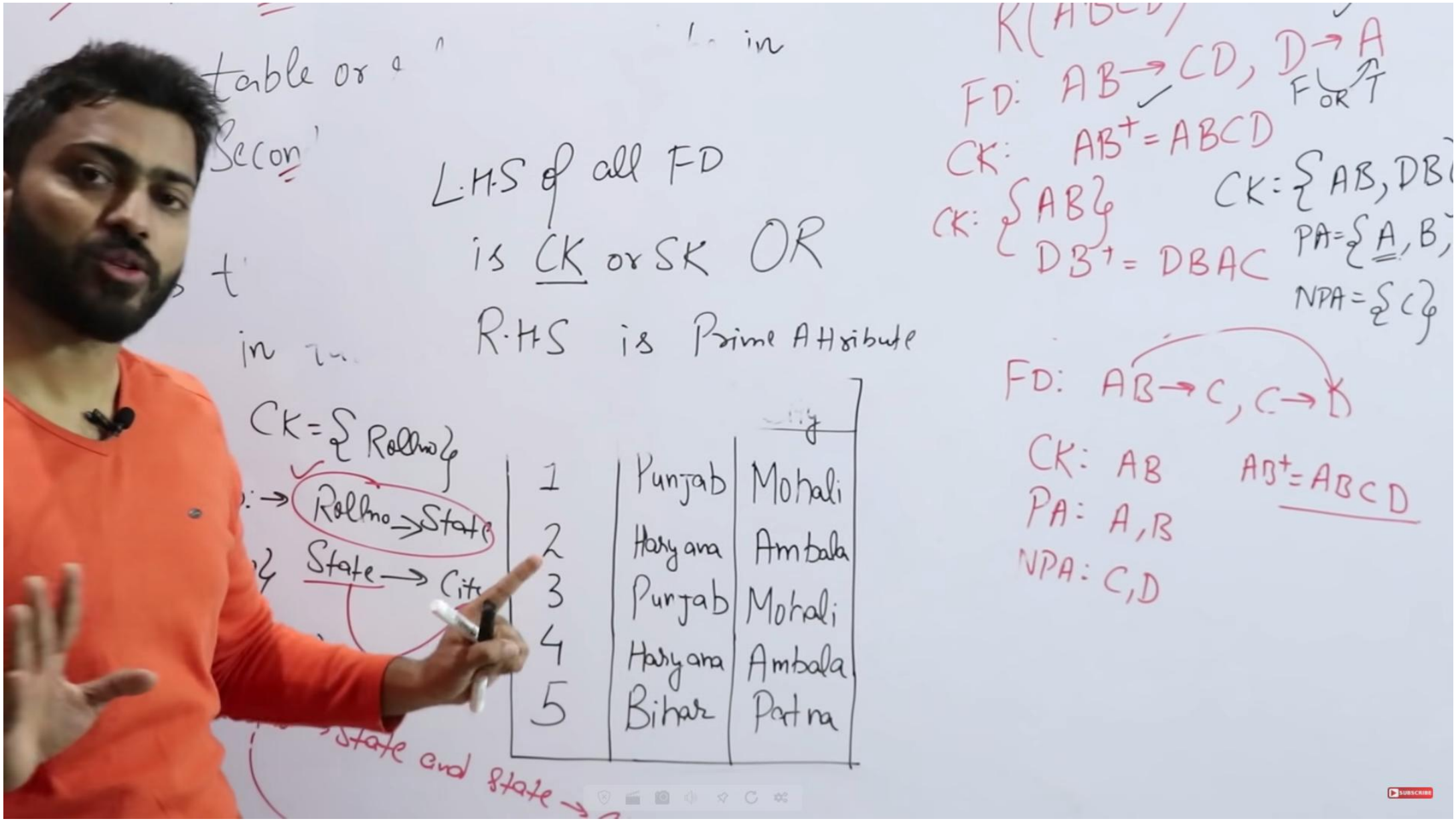


table or a
Secon
in
L.H.S of all FD
is CK or SK OR
R.H.S is Prime Attribute
CK={Rollno}
Rollno→State
State→
1 Punjab Mohali
2 Haryana Ambala
3 Punjab Mohali
4 Haryana Ambala
5 Bihar Patna
FD: AB→CD, D→A
CK: AB+=ABCD
CK: {AB}
DB+=DBAC
CK: {AB, DB
PA={A, B}
NPA={C}
FD: AB→C, C→D
CK: AB
PA: A, B
NPA: C, D
AB+=ABCD