

Normalized schemes in BCNF

RegisterUser[ID, FirstName, LastName, Email, Password]

FD:

{ID} -> {FirstName, LastName, Email, Password}

{Email} -> {ID, FirstName, LastName, Password}

Candidate Keys:

{ID, Email}

Discuss[PostID, UserID, creatorName]

Discuss.PostID references to Post.PostID

Discuss.UserID references to RegisterUser.UserID

FD:

{PostID, UserID} -> {creatorName}

Candidate Keys:

{PostID, UserID}

PostID[PostID, AuthorID, PostTitle, PostContent, DatePost]

PostID.AuthorID references to RegisterUser.ID

FD:

{PostID} -> {AuthorID, PostTitle, PostContent, DatePost}

Candidate Keys:

{PostID}

ReplyComment[CommentID, PostID, AuthorID, Content, CommentDate]

ReplyComment.PostID references to Post.PostID

ReplyComment.AuthorID references to RegisterUser.ID

FD:

{CommentID, PostID} -> {AuthorID, Content, CommentDate}

Candidate Keys:

{CommentID, PostID}

Practicequestion[QuestionID, Content, Solution, Explanation]

FD:

{QuestionID} -> {Content, Solution, Explanation}

{Content} -> {QuestionID, Solution, Explanation}

{Explanation} -> {QuestionID, Content, Solution}

Candidate Keys:

{QuestionID}, {Content}, {Explanation}

Choice[QuestionID, ChoiceID, Content]

Choice.QuestionID references Practicequestion.QuestionID

FD:

{QuestionID, ChoiceID} -> {Content}

Candidate Keys:

{QuestionID, ChoiceID}

Learn[UserID, QuestionID]

Learn.UserID references RegisterUser.UserID

Learn.QuestionID references Practicequestion.QuestionID

FD: None

Candidate Keys:

{UserID, QuestionID}

Compound[CompoundName, ChemicalFormula, AtomicNumber, State, MeltingPoint, BoilingPoint, Appearance, MolecularWeight]

FD:

CompoundName -> {ChemicalFormula, AtomicNumber, State, MeltingPoint, BoilingPoint, Appearance, MolecularWeight}

ChemicalFormula -> {CompoundName, AtomicNumber, State, MeltingPoint, BoilingPoint, Appearance, MolecularWeight}

Candidate Keys:

{CompoundName, ChemicalFormula}

Produces[ReactantFormula, ProductFormula, ChemicalEquation]

Products.ReactantFormula references Compound.ChemicalFormula

Products.ProductFormula references Compound.ChemicalFormula

FD:

{ReactantFormula, ProductFormula} -> ChemicalEquation

{ReactantFormula, ChemicalEquation} -> ProductFormula

Candidate Keys:

{ReactantFormula, ChemicalFormula}, {ReactantFormula, ProductFormula}

Search[CompoundFormula, UserID]

Search.CompoundFormula references Compound.ChemicalFormula

Search.UserID references User.UserID

FD: None

Candidate Keys:

{CompoundFormula, UserID }

SearchHistory[CompoundFormula, UserID, KeywordHistory]

SearchHistory.{CompoundFormula, UserID} references Search.{CompoundFormula, UserID}

FD:

{CompoundFormula, UserID} -> KeywordHistory

Candidate Keys:

{CompoundFormula, UserID}