**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, PosTitle, 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}