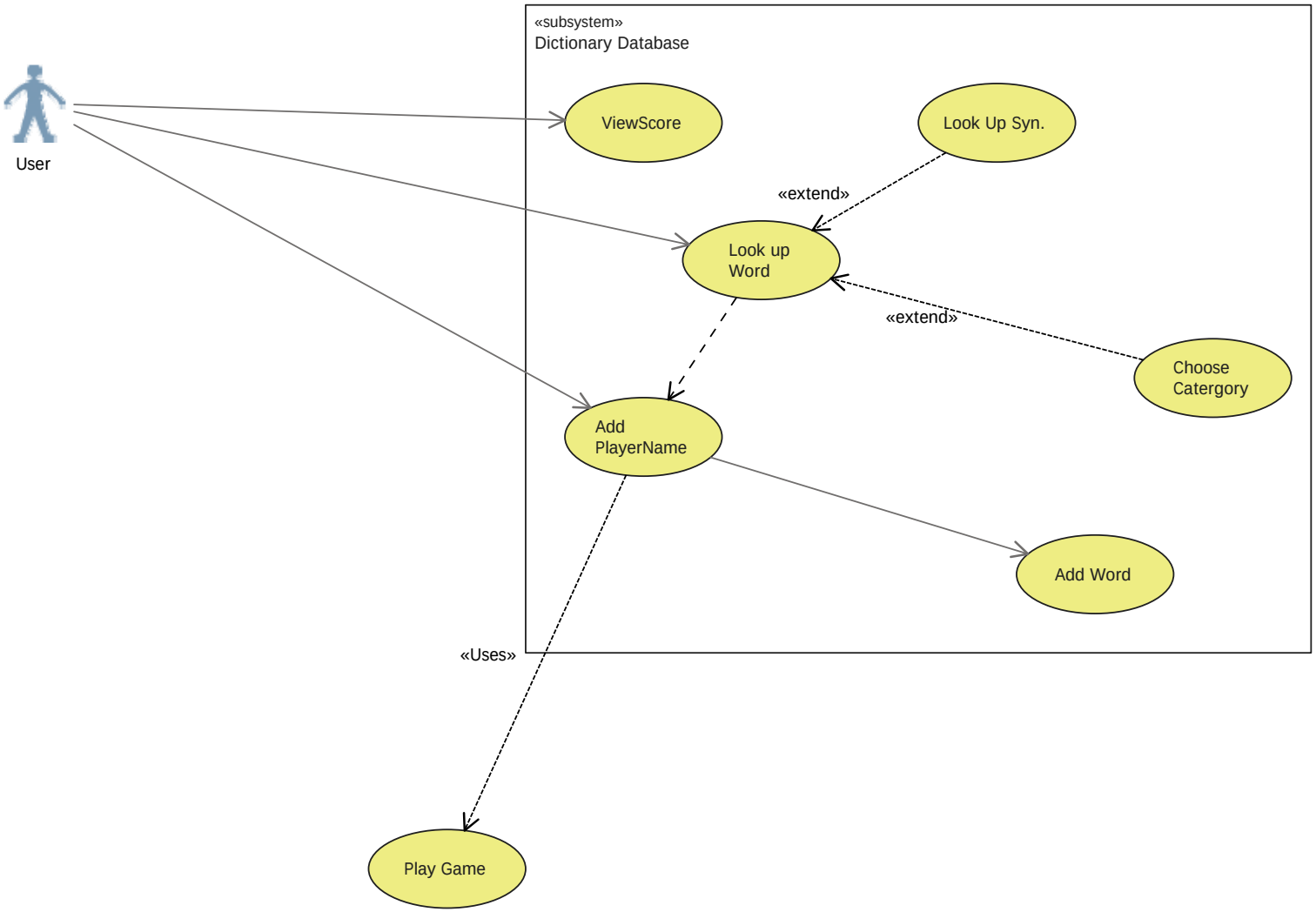
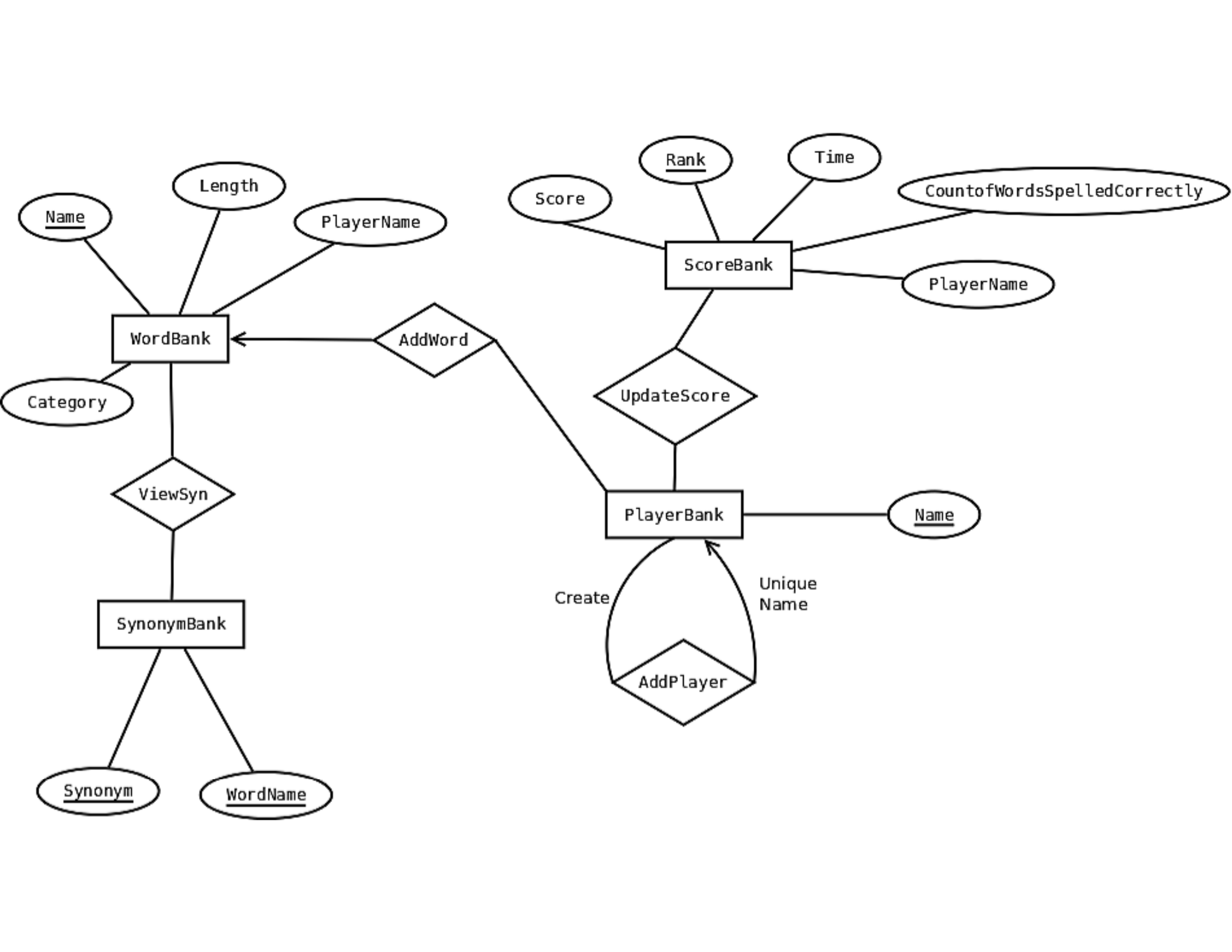
Adrian Wang, James Le – Phase 1 Requirements

Requirements

- Have a GUI to access the database
    - Will have an educational word-spelling game that will use the English dictionary
- Have user easily interact with the database indirectly
- The user is able to input their own words into the database
    - Should be able to distinct from user inputted and original words
- Player names will have to be unique
- Will have static categories to put the words under
- User will be able to display their score (number of correct words spelled)
    - The user will have a player and score entity tied to it
- The dictionary database will have attributes of word length, category, and player name in case the user wants to add a new word
- After the game is over, score is saved

uc UMLUseCaseDiagram1




Name
Length
PlayerName
WordBank
Category
ViewSyn
SynonymBank
Synonym
WordName
AddWord
Rank
Time
Score
CountofWordsSpelledCorrectly
ScoreBank
PlayerName
UpdateScore
PlayerBank
Name
Create
Unique
Name
AddPlayer

James Le, Adrian Wang – Phase 1 Relation Schemas

Database Schema

WordBank(Name, PlayerName, Length, Category)
SynonymBank(Synonym ,WordName)
PlayerBank(Name)
ScoreBank(Rank, Score ,PlayerName, ,Time, CountofWordsSpelledCorrectly)

Relationship Schema

AddWord(WordName,PlayerName)
addPlayer(PlayerName)
ViewSyn(WordName, Synonym)
UpdateScore(PlayerName, Rank)

BNCF

WordBank(Name, PlayerName, Length, Category)
In BNCF as
Name → PlayerName, Length, Category

SynonymBank(Synonym, WordName)
In BNCF as
Synonym → WordName

PlayerBank(Name)
In BNCF as it does not violate any BNCF rules.

ScoreBank(Rank, Score ,PlayerName,Time, CountofWordsSpelledCorrectly)
In BNCF as
Score, Time, CountofWordsSpelledCorrectly → Rank, PlayerName

AddWord(WordName, PlayerName)
In BNCF as
WordName → PlayerName

addPlayer(PlayerName)
In BNCF does not violate any rules

ViewSyn(WordName, Synonym)
In BNCF
Synonym → WordName

UpdateScore(PlayerName, Rank)
In BNCF
Rank → PlayerName

cd UMLClassDiagram1