CS6400: Phase 1 Report

Team65  
Summer 2022

Table of Contents

[1 Tradeplaza data types 3](#_Toc105677519)

[1.1 User 3](#_Toc105677520)

[1.2 Administrator 3](#_Toc105677521)

[1.3 Registered User 3](#_Toc105677522)

[1.4 Postal Code 4](#_Toc105677523)

[1.5 Item 4](#_Toc105677524)

[1.6 Condition 5](#_Toc105677525)

[1.7 Game Type 5](#_Toc105677526)

[1.8 Collectible Card Game 5](#_Toc105677527)

[1.9 Video Game – Platform 5](#_Toc105677528)

[1.10 Video Game – Media 5](#_Toc105677529)

[1.11 Computer Game – Platform 5](#_Toc105677530)

[1.12 Trade 6](#_Toc105677531)

[2 Tradeplaza business logic constraints 7](#_Toc105677532)

[2.1 User 7](#_Toc105677533)

[2.2 Item 7](#_Toc105677534)

[2.3 Trade 7](#_Toc105677535)

[3 Task decomposition and abstract code (TD/AC) 8](#_Toc105677536)

[3.1 Login 8](#_Toc105677537)

[3.2 User registration 8](#_Toc105677538)

[3.3 Main menu 8](#_Toc105677539)

[3.3.1 Unaccepted trades 8](#_Toc105677540)

[3.3.2 Response time 8](#_Toc105677541)

[3.3.3 My rank 8](#_Toc105677542)

[3.3.4 List item 8](#_Toc105677543)

[3.3.5 My items 8](#_Toc105677544)

[3.3.6 Search items 8](#_Toc105677545)

[3.3.7 Trade history 8](#_Toc105677546)

# Tradeplaza data types

## User

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Email | Varchar(320) | Yes | Not allowed |
| Nickname | Varchar(30) | Yes | Not allowed |
| Password | Varchar(128) | No | Not allowed |

## Administrator

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Email | Varchar(320) | Yes | Not allowed |
| Nickname | Varchar(30) | Yes | Not allowed |
| Password | Varchar(128) | No | Not allowed |
| Last Login Time | Smalldatatime(YYYY-MM-DD hh:mm:ss) | No | Not allowed |

## Registered User

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Email | Varchar(320) | Yes | Not allowed |
| Nickname | Varchar(30) | Yes | Not allowed |
| Password | Varchar(128) | No | Not allowed |
| First Name | Varchar(30) | No | Not allowed |
| Last Name | Varchar(30) | No | Not allowed |
| Postal Code | Varchar(5) | No | Not allowed |

## Postal Code

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Postal Code | Varchar(5) | Yes | Not allowed |
| City | Varchar(50) | No | Not allowed |
| State | Varchar(128) | No | Not allowed |
| Latitude | Decimal(8,6) | No | Not allowed |
| Longitude | Decimal(9,6) | No | Not allowed |

## Item

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Item Number | Int | Yes | Not allowed |
| Registered User  (Owner) | Varchar(30) | No | Not allowed |
| Title | Varchar(300) | No | Not allowed |
| Description | Varchar(1000) | No | Allowed |
| Condition | Enum(6) | No | Not allowed |
| Game type | Enum(5) | No | Not allowed |
| Video Game –  Platform | Enum(3) | No | Allowed |
| Video Game – Media | Enum(3) | No | Allowed |
| Computer Game –  Platform | Enum(3) | No | Allowed |
| Availability | Boolean | No | Not allowed |

## Condition

Enum of Unopened, Like New, Lightly Used, Moderately Used, Heavily Used, Damaged/Missing parts

## Game Type

Enum of Board Game, Playing Card Game, Collectible Card Game, Video Game, Computer Game

## Collectible Card Game

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Number of Cards being offered | Smallint | No | Not allowed |

## Video Game – Platform

Enum of Nintendo, PlayStation, Xbox

## Video Game – Media

Enum of optical disc, game card, cartridge

## Computer Game – Platform

Enum of Linux, macOS, Windows

## Trade

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Unique | Null |
| Proposer item number | Int | Yes | Not allowed |
| Desired item number | Int | Yes | Not allowed |
| Proposal date | Date | No | Not allowed |
| Action | Boolean | No | Allowed |
| Action date | Date | No | Allowed |

# Tradeplaza business logic constraints

## User

* New user need self-register
* Email is used to uniquely identify user in DBMS

## Item

* When collectible card game is chosen for game type, display, Number of cards being offered, input option
* When video game is chosen for game type, display, platform and media drop downs
* When computer game is chosen for game type, display, platform dropdown
* Item number is ordinally auto-generated by system
* Item availability becomes FALSE, when owner propose to trade or trade completed

## Trade

* Counterparty can only propose trade when item availability is TRUE
* User cannot propose trade to him/herself
* User without item listed can only browse, but not trade
* Proposer item number and Desired item number pair has no duplicates
* If action is TRUE, meaning trade is completed, both proposed and desired item availability are FALSE and cannot be used for trading again

# Task decomposition and abstract code (TD/AC)

## Login

## User registration

## Main menu

### Unaccepted trades

#### List of accept/reject trades

#### Action message

### Response time

### My rank

### List item

#### Success list

### My items

#### List of my items

#### detail

### Search items

#### List of searched item

#### View item

#### Propose trade

#### Display confirm message

### Trade history

#### List of trade history

#### Trade details