Joystick Junction - DB Proposal

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Listing Collection

For the Listing Collection, we will keep track of the listing's information. Each listing will have its own ObjectID, as well as the PosterID for the respective user who posts it. Other attributes will include the date and time (posted, updated, closed), the condition and secondary condition of the listing, the price, etc. Furthermore, the listing will contain subdocuments for offers and comments too.

```
{
    "_id": ObjectId("6423820abc55383093f595fd"),
    "posterId": ObjectId("6423820abc55383093f595fa"),
    "open": true,
    "listingType": [
        "Sell",
        "Trade"
    ],
    "title": "Pokemon Soulsilver Big Box with Pokewalker CIB",
    "timestamps": {
        "datePosted": "03/25/2023",
        "timePosted": "15:21:32",
        "dateUpdated": "03/30/2023",
        "timeUpdated": "17:03:42"
    },
    "mainCondition": "Used",
    "secondaryCondition": [
        "Cartridge",
        "Box",
        "Game Manual",
        "Inserts",
        "Pokewalker & clip",
        "Pokewalker Cardboard Insert",
        "Outer Box",
        "Plastic Case for Outer Box"
    ],
```

```json
    "price": 290,
    "tradeWants": [
        "Pokemon Heartgold Big Box with Pokewalker CIB",,
        "Rhythm Thief & the Emperor's Treasure CIB"
    ],
    "attachments": [
        "https://i.imgur.com/RUG7UTW.jpeg",
        "https://i.imgur.com/iBy6UNA.png",
        "https://i.imgur.com/qcmgHj4.png",
        "https://www.youtube.com/watch?v=dQw4w9WgXcQ"
    ],
    "shippingPrice": 10,
    "shippingMethods": [
        "USPS Priority Mail",
        "Local Meetup"
    ],
    "description": "Comes with everything except for Pokewalker manual and
Pokewalker sleeves.",
    "returnPolicy": "Returns accepted within 30 days. Buyer must pay for return
shipping.",
    "rejectionOfferValue": 270,
    "currency": "United States Dollar",
    "acceptedPaymentMethods": [
        "Paypal G&S",
        "Paypal F&F"
    ],
    "offers": {...},
    "comments" : {...}
}
```

Name	Type	Description
_id	ObjectId	MongoDB ObjectId for the listing.
posterId	ObjectId	MongoDB ObjectId for the poster.
open	boolean	States whether the listing is currently open or closed.
listingType	string	A designator to check if the listing is to buy or sell a item.

title	string	Title of the listing.
timestamps.datePosted	string	Date the listing was originally posted.
timestamps.timePosted	string	Time the listing was originally posted.
timestamps.dateUpdated	string	Date the listing was most recently updated. Will default to datePosted.
timestamps.timeUpdated	string	Time the listing was most recently updated. Will default to datePosted.
mainCondition	string	Basic condition of the item such as: ● New ● Like New ● Used ● Graded
secondaryCondition	array (of strings)	A array of the items contents such as: ● Cartridge/Disc ● Box ● Manual/Inserts ● Other* * Certain documented items are known to have additional contents, like a outer box or promotional item. In some cases it will be listed by the database and the user is able to manually add a custom content.
price	number	The current price of the listing.
tradeWants	array (of strings)	An array of items the lister wants to trade for.
attachments	array (of strings)	An array containing links of an item.

shippingPrice	number	Estimated price of shipping.
shippingMethods	array (of strings)	Array that stores the shipping methods the poster supports.
description	string	Description of the item, its contents and its condition.
returnPolicy	string	Return policy of the item.
rejectionOfferValue	number	The minimum offer the seller will allow to be considered or the maximum offer the buyer will allow to be considered. Any offer above or below this value will be automatically rejected.
currency	string	Currency used by the poster.
acceptedPaymentMethods	array (of strings)	Array that stores the payment methods the poster accepts.
offers	subdocument	Collection of all offers submitted.
comments	subdocument	Collection of all comments to the post

Offers Subdocument

The Offers Subdocument has information about an offer for a listing. Each item in the subcollection contains three IDs: the ID of the offer, the ID of the sender, and the ID of the receiver.

```
{
    "_id": ObjectId("6423820abc55383093f595fe"),
    "senderId": ObjectId("6423820abc5d843093f595f9"),
    "receiverId": ObjectId("6423820abc5458h193f595f9"),
    "timestamps": {
        "datePosted": "03/25/2023",
        "timePosted": "19:31:01"
    },
    "price": 275
}
```

Name	Type	Description
_id	ObjectId	MongoDB ObjectId for the offer.
senderId	ObjectId	MongoDB ObjectId for the sender.
receiverId	ObjectId	MongoDB ObjectId for the receiver.
timestamps.datePosted	string	Date the offer was originally sent.
timestamps.timePosted	string	Time the offer was originally sent.
price	number	Value of the offer

Comments Subdocument

The Comments Subcollection will have a unique ID for the comment and the ID of the user who posted it. This subcollection will also include an upvote/downvote feature.

```
{
    "_id": ObjectId("6947220abc55383093f595fe"),
    "posterId": ObjectId("6423820abc5d843093f595f9"),
    "timestamps": {
        "datePosted": "03/25/2023",
        "timePosted": "15:30:35",
        "dateUpdated": "03/25/2023",
        "timeUpdated": "15:30:35"
    },
    "content": "Hi, can I see close up pictures of the label on the cartridge?",
    "upvotes": 0,
    "downvotes" 0
}
```

Name	Type	Description
_id	ObjectId	MongoDB ObjectId for the comment.
posterId	ObjectId	MongoDB ObjectId for the poster.
timestamps.datePosted	string	Date the comment was originally posted.
timestamps.timePosted	string	Time the comment was originally posted.
timestamps.dateUpdated	string	Date the comment was most recently updated. Will default to datePosted.
timestamps.timeUpdated	string	Time the comment was most recently updated. Will default to datePosted.
content	string	The content of the comment.
upvotes	number	Amount of upvotes.
downvotes	number	Amount of downvotes.

Users Collection

The User Collection will store all users. Users will be able to create personal data, login, and post reviews, comments, and listings. Users will also be able to view all of the previous sales and purchases they have made.

```
{
    "_id": ObjectId("641e96b995d6dcef06466d08"),
    "firstName": "Smith",
    "lastName": "Jones",
    "email": "TheSmither@gmail.com",
    "age": 20,
    "dob": "08/16/2002",
    "doc": "03/30/2023",
    "username": "TheSmither",
    "password": "JonseyBoy123",
    "city": "Hoboken",
    "state": "NJ",
    "comments": ["63fe9c3ef6c84f871436051b"],
    "reviews": ["7794dc45442e27f854d45bd4"],
    "purchaseHistory": {...},
    "salesHistory": {...},
    "currentListings": ["641e96b995d6dcef145368d"],
    "watchedListings": ["63fe9c3ef6c84f87168573b"],
    "overallRating": 5
}
```

Name	Type	Description
_id	ObjectId	Globally unique identifier to represent The user
firstName	string	The user's first name
lastName	string	The user's last name
email	string	The user's email, must contain a valid domain
age	number	The user's age
dob	string	The user's birthdate in "MM/DD/YYYY" format. Minimum age is 18 years.

doc	string	The date the user created the account in "MM/DD/YYYY".
username	string	The user's display name on the website
password	string	A string that we use to confirm the user and a string only the user should know
city	string	The user's city
state	string	The user's state
comments	array (of strings)	An array of all the commentIds that the user has made
reviews	array (of strings)	An array of all the reviewIds that the user has made
purchaseHistory	subdocument	A subdocument of all the purchases the user has made
salesHistory	subdocument	A subdocument of all the sales the user has made
currentListings	array (of strings)	An array of strings containing all the listingIds the user has made and that are currently active
watchedListings	array (of strings)	An array containing all the Listing IDs the user is currently watching.
overallRating	number	A number from 1-5 that contains the average rating from all the reviews the user received. Rounded to two decimal places.

Transaction Subdocument

This is a subdocument of the Users collection. It contains information about the transaction, including the seller and buyer ID, the price, and the timestamps.

```
{
    "_id": ObjectId("641e96b995d6dcef06466d08"),
    "listingId": ObjectId("641eb9dsh734dcef06466d08"),
    "timestamps": {
        "date": "03/25/2023",
        "time": "19:39:01"
    },
    "price": 40,
    "seller": ObjectId("641ehg5995d6dcef06466d08"),
    "buyer": ObjectId("641e96b995d6tj2706466d08")
}
```

Name	Type	Description
_id	ObjectId	This ObjectId corresponds to the ID of the transaction.
listingId	ObjectId	This ObjectId is the item involved in the transaction.
price	number	The price of the transaction.
timestamps.date	string	The date of the transaction in "MM/DD/YYYY" format.
timestamps.time	string	The time the transaction was completed in time format.
seller	ObjectId	The ObjectId of the seller.
buyer	ObjectId	The ObjectId of the buyer.

Reviews Collection

The Reviews Collection will store all the reviews the users have made. Reviews will contain a body of text and rating score describing the user it is about from another user, only if they have purchased or sold to that user.

```
{
    "_id": ObjectId("7794dc45442e27f854d45bd4"),
    "userFrom": ObjectId("641e96b995d6dcef06466d08"),
    "userAbout": ObjectId("62855db15c1535e316c58f56"),
    "reviewBody": "This user was amazing, 5 stars!",
    "rating": 5,
}
```

Name	Type	Description
_id	ObjectId	The id of the review
userFrom	ObjectId	The id of the user who made the review
userAbout	ObjectId	The id of the user that the review is about
reviewBody	string	The content of the review
rating	number	The score that is given to the user out of a 1-5