Outline of Data Model for COMP 2406

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Movie Objects

- **movieID**: stores a unique id to access each movie (int)
- **title**: stores the title of the movie (string)
- **plot**: stores a plot description for the movie (string)
- **year**: stores the release year for the movie (int)
- **runtime**: stores the runtime for the movie (int)
- **rating**: stores an average rating for the film based on reviews (double)
- **genres**: stores an array of strings with the associated genre tags (Array of Strings)
- **directors**: stores an array of strings with the names of people, can be used as values to access the objects (Array of Strings)
- **writers**: stores an array of strings with the names of people, can be used as values to access the objects (Array of Strings)
- **actors**: stores an array of strings with the names of people, can be used as values to access the objects (Array of Strings)
- **reviews**: stores an array of integers associated with the ids of reviews written about this film (Array of Integers)

Example Movie Object

{"movieID": 1234,
 "title":"Dead Poets Society",
 "plot":"Maverick teacher John Keating uses poetry to embolden his boarding school students to new heights of self-expression.",
 "year":1989,
 "runtime": "128 min",
 "rating": 7.4
 "genres":["Comedy","Drama"],
 "directors":["Peter Weir"],
 "writers":["Tom Schulman"],
 "actors":["Robin Williams","Robert Sean Leonard","Ethan Hawke","Josh Charles"],
 "reviews":[2,6,46]}

User Objects
- **username**: stores a unique username, used to access each user (string)
- **password**: stores the password for the user, used to log in (string)
- **accountType**: stores a boolean value for the type of account, True indicates a contributing user, False indicates a basic user (boolean)
- **peopleFollowing**: stores an array of strings with the names of people, can be used as values to access the objects (Array of Strings)
- **usersFollowing**: stores an array of strings with usernames of accounts being followed, can be used as values to access the objects (Array of Strings)
- **followers**: stores an array of strings with the usernames of accounts following this account, this was included outside of the project specification in order to simplify sending notifications (Array of Strings)
- **reviews**: stores an array of integers associated with the ids reviews written by this user (Array of Integers)
- **notifications**: stores an array of notification objects relevant to the user (Array of Objects)

Example User Object
{"username": "snapracklepop",
 "password": "password123",
 "accountType": True,
 "peopleFollowing":["Peter Weir", "Robin Williams"],
 "usersFollowing": ["zaraali", "angelonfira"]
 "followers":["angelonfira"],
 "reviews":[2,6,46]
 "notifications":
        [{"name": "snapracklepop","title": "Dead Poets Society","movieID": 1234, "type": 0}
         {"name": "zaraali","title": "Avengers","movieID": 99, "type": 1}]

Notification Objects
- **name**: stores a username/person name corresponding to the user that wrote the review (string)
- **title**: stores the title of the movie this review was written for, added in addition to the movieID to minimize server load by sending fewer requests (string)
- **movieID**: stores the movie id of the associated movie to allow links (int)
- **type**: stores an integer corresponding to the type of notification. (int)
  0 = wrote a review for a movie, 1 = added movie to watch list, 2 = directed a movie, wrote a movie, 3 = acted in a movie

Example Notification Object ("snapracklepop added Dead Poets Society to their watchlist**")**
{"name": "snapracklepop",
 "title": "Dead Poets Society",
 "movieID": 1234,
 "type": 2}

Reviews Objects

- **reviewID**: stores a unique id, used to access each review (int)
- **username**: stores the username of the user that wrote the review (string)
- **movieID**: stores the id of the movie that the review is associated with (int)
- **rating**: stores the value of the users rating of the movie, value between 1 and 10 (int)
- **briefsummary**: stores a summary of the review **optional (string)
- **review**: stores the full text of the review **optional (string)

Example Review Object

{"reviewID": 46,
 "username": snapracklepop,
 "movieID": 1234,
 "rating": 7,
 "briefsummary: "Inspiring, intense story of a teacher and his students.",
 "review": "Older kids fall hard for this stirring coming-of-age drama; they love the way it challenges them to think for themselves. The story also tugs at their heartstrings. They get to know the boys -- their loves, their goals, and their fears. They root for the characters, wanting them to achieve their dreams (one boy wants to play the sax, another wants to become an actor)."}

People Objects

- **name**: stores a unique name, used to access each person (string)
- **followers**: stores an array of strings with the usernames of accounts following this person, this was included outside of the project specification in order to simplify sending notifications (Array of Strings)
- **moviesDirected**: stores an array of ids of the movies a person has directed, can be used as values to access the objects (Array of Integers)
- **moviesWritten**: stores an array of ids of the movies a person has written, can be used as values to access the objects (Array of Integers)
- **moviesActed**: stores an array of ids of the movies a person has acted in, can be used as values to access the objects (Array of Integers)
- **commonCollabs**: stores an array of strings with names of frequent collaborators of the current person, can be used as values to access the objects (Array of Strings)

Example Person Object

{"name": "Robin Williams",
 "followers":["snapracklepop","zaraali"],
 "moviesDirected": [12],
 "moviesWritten": [12],
 "moviesActed":[22, 1234, 2356],
 "commonCollabs": ["Owen Wilson", "Ethan Hawke", "Josh Charles", "Chris Evans", "Jessica Jones"]