University of British Columbia, Vancouver
Department of Computer Science
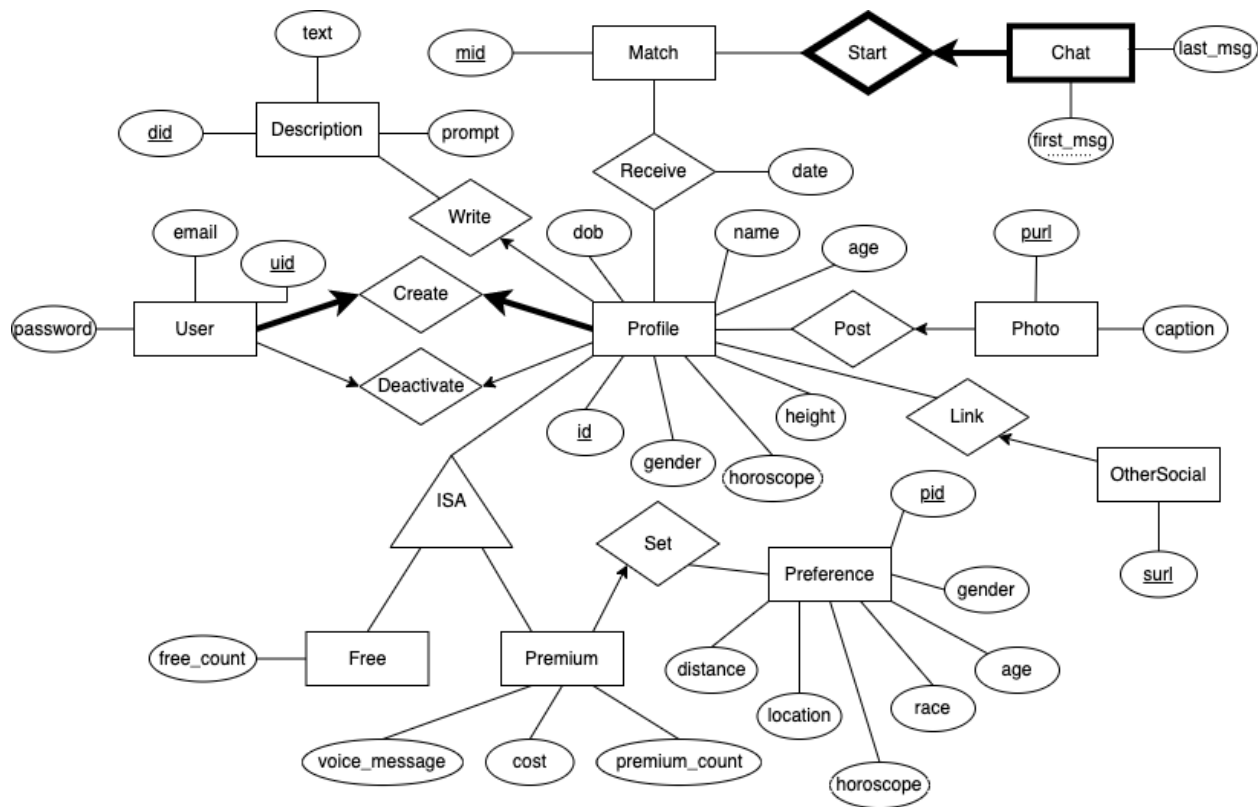
CPSC 304 Project Cover Page

Milestone #: 2

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Group Number: 11

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

ER Diagram:

In milestone 2, we changed our ER diagram by adding the dob (date of birth), age, and horoscope attributes to Profile and added the age and horoscope attributes to the Preference entity. This is because we wanted to have more meaningful functional dependencies and thought it made more sense for a profile to include details such as these.

Table Schemas:

Description(did : integer, text : char(150) , prompt: char(50))

ProfileWrite(id: integer, name: char(20), height: integer, gender: char(6), dob: date, age: integer, horoscope: char(10), **did: integer**)

Match(mid: integer)

ChatStart(first msg: char(80), **mid: integer,** last msg: char(80))

Receive(**mid: integer**, **id: integer,** date: date)

ProfileCreate(id: integer, name: char(20), height: integer, gender: char(6), dob: date, age: integer, horoscope: char(10), **uid: integer**)

UserDeactivate(uid: integer, email: char(20), password: char(50), **id: integer**)

PhotoPost(purl: integer, caption: char(50), **id: integer**)

Free(**id: integer**, free_count: integer)

PremiumSet(**id: integer, pid: integer**, voice_message: char(50) , cost: integer, premium_count: integer)

Preference(pid: integer, gender: char(6), distance: integer, location: char(20), race: char(20), age: integer, horoscope: char(10))

OtherSocialLink(surl: char(50), **id: integer**)

Functional Dependencies:

Description:

did -> text, prompt

ProfileWrite:

id -> name, height, gender, dob, age, horoscope, did

dob -> age

dob -> horoscope

Match:

mid -> mid

ChatStart:

first_msg, mid -> last_msg

Receive:

mid, id -> date

ProfileCreate:

id -> name, height, gender, dob, age, horoscope, uid

dob -> age

dob -> horoscope

UserDeactivate:

uid -> email, password, id

email -> password

PhotoPost:

purl -> caption, id

Free:

id -> free_count

PremiumSet:

id -> voice_message, cost, premium_count, pid

Preference:

pid -> gender, location, race, distance, age, horoscope

OtherSocialLink:

surl -> id

Normalization:

Description($\underline{did : integer}$, text : char(150) , prompt: char(50))

ProfileWrite$_1$($\underline{dob : date}$, age: integer)

ProfileWrite$_2$($\underline{dob : date}$, horoscope: char(10))

ProfileWrite$_3$($\underline{id : integer}$, name: char(20), height: integer, gender: char(6), dob: date, **did: integer**)

Match(<u>mid: integer)</u>

ChatStart(<u>first msg: char(80)</u>, **mid: integer,** last msg: char(80))

Receive(**<u>mid: integer</u>**, **<u>id: integer,</u>** date: date)

ProfileCreate$_1$(<u>dob: date</u>, age: integer)

ProfileCreate$_2$(<u>dob: date</u>, horoscope: char(10))

ProfileCreate$_3$(<u>id: integer</u>, name: char(20), height: integer, gender: char(6), dob: date, **uid: integer**)

UserDeactivate$_1$(<u>email: char(20)</u>, password: char(50))

UserDeactivate$_2$(<u>uid: integer</u>, email: char(20), **id: integer**)

PhotoPost(<u>purl: char(20)</u>, caption: char(50), **id: integer**)

Free(**<u>id: integer</u>**, free_count: integer)

PremiumSet(**<u>id: integer, pid: integer</u>**, voice_message: char(50) , cost: integer, premium_count: integer)

Preference(<u>pid: integer</u>, gender: char(6), distance: integer, location: char(20), race: char(20), age: integer, horoscope: char(10))

OtherSocialLink(<u>surl: char(50)</u>, **id: integer**)

SQL:

```sql
CREATE TABLE Description (

    did INTEGER PRIMARY KEY,

    text CHAR(150),

    prompt CHAR(50)

);


INSERT INTO Description(did, text, prompt)

VALUES (1, "flowers", "What is your favourite item?"),

       (2, "basketball", "What is your favourite hobby?"),

       (3, "sushi"," What is your favourite meal?"),

       (4, "play hockey", "What do you like to do in your pastime?"),

       (5, "you vibe with me", "I like you if...");


CREATE TABLE ProfileWrite_1 (

    dob DATE PRIMARY KEY,

    age INTEGER

);


INSERT INTO ProfileWrite_1(dob, age)

VALUES (2002-10-25, 19),

       (2002-10-20, 19),

       (2002-09-26, 19),

       (2001-01-01, 20),

       (2022-07-07, 0);


CREATE TABLE ProfileWrite_2 (

    dob DATE PRIMARY KEY,

    horoscope CHAR(10)
```

```sql
);


INSERT INTO ProfileWrite_2(dob, horoscope)

VALUES (2002-10-25, "Scorpio"),

       (2002-10-20, "Libra"),

       (2002-09-26, "Libra"),

       (2001-01-01, "Capricorn"),

       (2022-07-07, "Cancer");


CREATE TABLE ProfileWrite_3 (

    id INTEGER PRIMARY KEY,

    name CHAR(20),

    height INTEGER,

    gender CHAR(6),

    dob DATE,

    did INTEGER,

    FOREIGN KEY (did) REFERENCES Description(did)

);


INSERT INTO ProfileWrite_3(id, name, height, gender, dob, did)

VALUES (1, "Sam Zhao", 182, "male", 2002-10-25, 1),

       (2, "Sam Chao", 181, "female", 2002-10-20, 2),

       (3, "Justin Zhao", 180, "male", 2002-09-26, 3),

       (4, "Aaron Zhou", 179, "female", 2001-01-01, 4),

       (5, "John Smith", 20, "other", 2022-07-07, 5);


CREATE TABLE Match (

    mid INTEGER PRIMARY KEY

);
```

```sql
INSERT INTO Match(mid)

VALUES (1),(2),(3),(4),(5);


CREATE TABLE ChatStart (

    first_msg CHAR(80),

    mid INTEGER,

    last_msg CHAR(80),

    PRIMARY KEY (first_msg, mid),

    FOREIGN KEY (mid)

        REFERENCES Match(mid)

        ON DELETE CASCADE -- Weak Entity

);


INSERT INTO ChatStart(first_msg, mid, last_msg)

VALUES ("heyyyy", 1, 'k bye'),

        ("hi", 2, 'bye lol'),

        ("you sexi", 3, 'ur gross'),

        ("lemme lick you", 4, 'aight pce'),

        ("damn you fine as hell", 5, 'goodbye.');


CREATE TABLE Receive (

    mid INTEGER,

    id INTEGER,

    date DATE,

    PRIMARY KEY (mid, id),

    FOREIGN KEY (mid) REFERENCES Match(mid),

    FOREIGN KEY (id) REFERENCES ProfileWrite_3(id)

);
```

```sql
INSERT INTO Receive(mid, id, date)
VALUES (1, 1, 2022-07-20),
       (2, 2, 2022-06-21),
       (3, 3, 2022-07-22),
       (4, 4, 2022-10-23),
       (5, 5, 2022-07-01),


CREATE TABLE ProfileCreate_1 (
   dob DATE PRIMARY KEY,
   age INTEGER
);


INSERT INTO ProfileCreate_1(dob, age)
VALUES (2002-10-25, 19),
       (2002-10-20, 19),
       (2002-09-26, 19),
       (2001-01-01, 20),
       (2022-07-07, 0);


CREATE TABLE ProfileCreate_2 (
   dob DATE PRIMARY KEY,
   horoscope CHAR(10)
);


INSERT INTO ProfileCreate_2(dob, horoscope)
VALUES (2002-10-25, "Scorpio"),
       (2002-10-20, "Libra"),
       (2002-09-26, "Libra"),
```

```sql
        (2001-01-01, "Capricorn"),

        (2022-07-07, "Cancer");



CREATE TABLE ProfileCreate_3 (

    id INTEGER PRIMARY KEY,

    name CHAR(20),

    height INTEGER,

    gender CHAR(6),

    dob DATE,

    uid INTEGER NOT NULL, -- Total Participation

    FOREIGN KEY (uid) REFERENCES UserDeactivate_2(uid)

        ON DELETE NO ACTION

        ON UPDATE CASCADE

);



INSERT INTO ProfileCreate_3(id, name, height, gender, dob, uid)

VALUES (1, "Sam Zhao", 182, "male", 2002-10-25, 1),

       (2, "Sam Chao", 181, "female", 2002-10-20, 2),

       (3, "Justin Zhao", 180, "male", 2002-09-26, 3),

       (4, "Aaron Zhou", 179, "female", 2001-01-01, 4),

       (5, "John Smith", 20, "other", 2022-07-07, 5);



CREATE TABLE UserDeactivate_1 (

    email CHAR(20) PRIMARY KEY,

    password CHAR(50)

);



INSERT INTO UserDeactivate_1(email, password)

VALUES ("samzhao273@gmail.com", "peepeepoopoo123"),
```

```sql
        ("samchao273@hotmail.com", "ilovelife123"),

        ("justinzhao273@outlook.com", "ilovemychildren123123"),

        ("calzone@gmail.com", "kekekeke321"),

        ("johnsmith@gmail.com", "sheesh00000001");


CREATE TABLE UserDeactivate_2 (

    uid INTEGER,

    email CHAR(20),

    id INTEGER UNIQUE, -- Key Constraint

    PRIMARY KEY (uid),

    FOREIGN KEY (id) REFERENCES ProfileCreate_3(id)

        ON DELETE CASCADE -- One-to-One

);


INSERT INTO UserDeactivate_2(uid, email, id)

VALUES (1,"samzhao273@gmail.com", 1),

        (2,"samchao273@hotmail.com", 2),

        (3,"justinzhao273@outlook.com", 3),

        (4,"calzone@gmail.com", 4),

        (5,"johnsmith@gmail.com", 5);


CREATE TABLE PhotoPost (

    purl INTEGER PRIMARY KEY,

    caption CHAR(50),

    id INTEGER,

    FOREIGN KEY (id) REFERENCES ProfileCreate_3(id)

        ON DELETE CASCADE

);
```

```sql
INSERT INTO PhotoPost(purl, caption, id)

VALUES ('www.imgur.com/1', 'me and my dogs', 1),

       ('www.imgur.com/2', 'me and my cats', 2),

       ('www.imgur.com/3', 'sailing', 3),

       ('www.imgur.com/4', 'my working on my cs homework', 4),

       ('www.imgur.com/5', 'i love cooking', 5);



CREATE TABLE Free (

    id INTEGER PRIMARY KEY,

    free_count INTEGER,

    FOREIGN KEY (id) REFERENCES ProfileCreate_3(id)

        ON DELETE CASCADE -- ISA

);



INSERT INTO Free(id, free_count)

VALUES (1, 20), (2, 21), (3, 22), (4, 23), (5, 24);



CREATE TABLE PremiumSet (

    id INTEGER PRIMARY KEY,

    pid INTEGER,

    voice_message CHAR(50),

    cost INTEGER,

    premium_count INTEGER,

    FOREIGN KEY (id) REFERENCES ProfileCreate_3(id)

        ON DELETE CASCADE, -- ISA

    FOREIGN KEY (pid) REFERENCES Preference(pid)

);



INSERT INTO PremiumSet(id, pid, voice_message, cost, premium_count)
```

```sql
VALUES (1, 1, 'Hello everyone!', 5, 49),
       (2, 2, 'Where is everyone?', 5, 50)
       (3, 3, 'Hi', 5, 51)
       (4, 4, 'I love long walks on the beach', 5, 52)
       (5, 5, 'I love dogs', 5, 53);


CREATE TABLE Preference (
   pid INTEGER PRIMARY KEY,
   gender CHAR(6),
   distance INTEGER,
   location CHAR(20),
   race CHAR(20),
   age INTEGER,
   horoscope CHAR(10)
);


INSERT INTO Preference(pid, gender, distance, location, race, age, horoscope)
VALUES (1, 'male', 50, 'Richmond', 'Asian', 19, 'Scorpio'),
       (2, 'female', 3, 'Vancouver', 'Caucasian', 50, 'Libra'),
       (3, 'male', 40, 'Burnaby', 'Black', 18, 'Libra'),
       (4, 'female', 60, 'Coquitlam', 'Hispanic', 80, 'Capricorn'),
       (5, 'other', 7, 'Vancouver', 'Asian', 19, 'Cancer');


CREATE TABLE OtherSocialLink (
   surl CHAR(50) PRIMARY KEY,
   id INTEGER,
   FOREIGN KEY (id) REFERENCES ProfileCreate_3(id)
       ON DELETE CASCADE
);
```

```sql
INSERT INTO OtherSocialLink(surl, id)

VALUES ('www.facebook.com', 1),

       ('www.instagram.com', 2),

       ('www.wechat.com', 3),

       ('www.whatsapp.com', 4),

       ('www.snapchat.com', 5);
```