**Database Coursework 1**  
**(Smartwatch (Health Tracker) App – Features)**  
   
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**User Requirement List (Draft)**

(Mostly reversed engineered of the Samsung health app)

User

* UserID (PK)
* Nickname
* Gender
* Height
* Weight
* Birthday
* Email
* Password
* PhoneNumber
* Badges
* Personal Best
* HeartRate

User History

* LogID (PK)
* UserID (FK)
* Login Date
* Duration

ExerciseType

* ExerciseID (PK)
* ExerciseName

UserExercise

* UserExerciseID (PK)
* ExerciseID (FK)
* UserID (FK)
* HeartRate
* Pace
* Distance

UserPreferences

* PreferenceID (PK)
* UserID (FK)
* SettingsID (FK)
* WatchFacePreference

WatchFace

* WatchfaceID (PK)
* WatchfaceName

PurchasedWatchFace (Bridge)

* UserID
* WatchfaceID

UserSettings

* SettingsID (PK)
* SettingsName

Badges

* BadgeID (PK)
* Name
* Requirement
* Category

Category

* CategoryID (PK)
* Sleep
* Steps
* Body Composition

FitnessProgrammes

* ProgrammeID (PK)
* ScheduleID (FK)
* ProviderName
* ProgrammeName
* ProgrammeCategory
* Description
* Avg. workout duration
* Equipment
* Difficulty

Provider

* ProviderID (PK)
* ProviderName
* Description

Programme Schedule

* ScheduleID (PK)
* Sunday
* Monday
* Tuesday
* Wednesday
* Thursday
* Friday
* Saturday
* Total Workouts (total sessions x Number of weeks)
* Total sessions
* Number of weeks

Blood Oxygen Level

* OxygenLevelID (PK)
* Oxygen Saturation level
* UserID (FK)
* Date

Step Count

* StepID(PK)
* UserID (FK)
* StepCount
* Time window
* Date

Alarms

* AlarmID (PK)
* UserID (FK)

Calorie Counter

* CounterID(PK)
* UserID (FK)
* Time window
* CalorieBurnt
* Date

Sleep Quality

* SleepQualityID (PK)
* UserID (FK)
* TimeWindow
* SleepType
* Date

**Changes made from original:**

* Split heart rate into separate table to avoid data redundancy and improve normalization.
  + Proceeded to do the same with personal best (scrapped) and badges (many-to-many relationship).
  + Heart table was set to have a one-to-many relation with the new UserExercise table.
  + Since Badges has a many-to-many relationship with the user, a bridge table had to be made between them.
* Discovered timestamp is a data type and changed the ‘Date’ attributes to timestamp where possible.
* Changed the attribute of ‘time window’ in the step count table and split it into two columns for greater flexibility and data manipulation. (Start time and end time).
* Completely revamped the database structure of UserExercise and ExerciseTypes, this involved merging and removing almost all the FitnessProgramme and related tables.
  + Another bridge table needed to be built to join UserExercise and User.
* UserSettings and Provider was seemingly redundant and removed. Programme Schedule was recycled into the program with UserExercise.
* Minor beneficial changes were made to several tables like alarms and user preferences like smartwatches.

**User Requirement List (Final)**

Users

* UserID (PK)
* Nickname
* Gender
* Height
* Weight
* Birthday
* Email
* Password
* PhoneNumber

User History

* LogID (PK)
* UserID (FK)
* LastLoginDate

MenuAccessed

* MenuActivityID (PK)
* UserID (FK)
* MenuName
* StartTime
* Duration

Alarms

* AlarmID (PK)
* UserID (FK)
* AlarmName
* Time

UserPreferences

* PreferenceID (PK)
* UserID (FK)
* WatchfaceID (FK)

WatchFace

* WatchfaceID (PK)
* WatchfaceName
* WatchfaceColour

PurchasedWatchFace (Bridge)

* UserID (PK, FK)
* WatchfaceID (PK, FK)

BadgesUnlocked (Bridge)

* UserID (PK, FK)
* BadgeID (PK, FK)

Badges

* BadgeID (PK)
* BadgeName
* Requirement
* CategoryName

UserExercise

* UserExerciseID (PK)
* UserID (FK)
* ExerciseID (FK)
* OxygenLevelID (FK)
* HeartRate (ID)
* CalorieBurnt
* DistanceTravelled
* StartTime
* EndTime

Exercises

* ExerciseID (PK)
* ExerciseTypeID (FK)
* ExerciseName
* Equipment
* Difficulty

ExerciseType

* ExerciseTypeID (PK)
* ExerciseCategory

Blood Oxygen Level

* OxygenLevelID (PK)
* Oxygen Saturation level
* TimeStamp

Step Count

* StepCountID(PK)
* ExerciseID (FK)
* StepCount

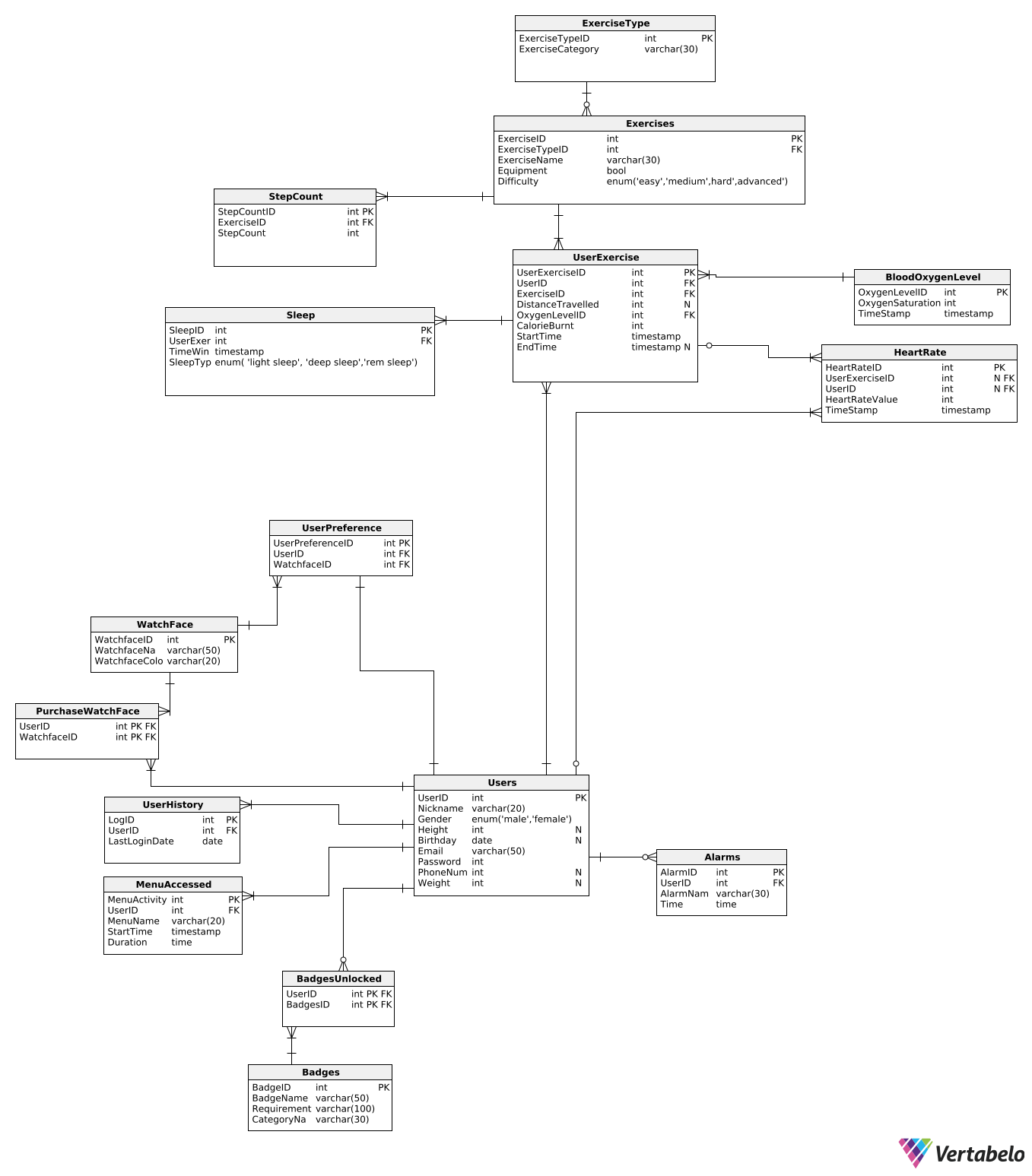
Sleep

* SleepID (PK)
* UserExerciseID (FK)
* TimeWindow
* SleepType

HeartRate

* HeartRateID (PK)
* UserExerciseID (FK)
* HeartRateValue
* TimeStamp

Physical ERD diagram (final):



Normalization:

UserExercise Split:

In the draft, "UserExercise" combines exercise details and user-specific data. This table has been split into "UserExercise" and "Exercises" to reduce redundancy by organizing data into distinct tables based on their entities. Promoting data integrity. It also enables better management and scalability of exercise-related information.

Badges Bridge Table Introduction:

In the final version, "BadgesUnlocked" is introduced as a bridge table for badges. This allows for a many-to-many relationship between users and badges, facilitating efficient tracking of badge acquisition without denormalizing the "Badges" table.

**First Normal Form (1NF):**

* Each table has a primary key and table has no repeating groups.
* For example, in the Users table, attributes like Badges and Personal Best were removed and replaced with separate tables to ensure atomicity (expressed across the database).
* Repeating groups like multiple badges or personal best records for a user were divided into separate tables (Badges, UserExercise, etc.), ensuring that each table represents a single entity. Clearing the requirement of making sure no two columns have similar information.

**Second Normal Form (2NF):**

* Tables are in 1NF and ensured that all non-key attributes are functionally dependent on the primary key by moving partial dependencies to separate tables.
* There are no non-key attributes which are functionally dependent on a partial key. For example, in the Badges table, BadgeName and Requirement are dependent on BadgeID.
* Removal of Partial Dependencies: Attributes that were partially dependent on composite keys were moved to separate tables. For example, in the PurchasedWatchFace table, UserID and WatchfaceID form a composite primary key, and UserID was removed to eliminate partial dependency.

**Third Normal Form (3NF):**

* Tables are in 2NF and elimination of transitive dependencies by moving non-key columns that depend on other non-key columns to their own tables.
* Elimination of Transitive Dependencies: The movement of HeartRate from the user table to its own table is an example of elimination of transitive dependencies.
* Composite Primary Keys: Used composite primary keys where to maintain uniqueness and integrity of data relationships.
* Normalization of Attribute Types: Ensured that each attribute contains only data of the same type and avoids storing multiple values in a single attribute.

**Merging:**

Since the database designs are mostly similar and to make sure the user’s felt a seamless transition experience, there were not many changes made to the tables themselves. The identical database was integrated.

There was a need to implement a flag/marker system to differentiate between the users. This was accomplished by adding a column to the users column and classifying them between ‘Original’, ‘BrandX’ and ‘PostMerge’. The steps taken were as followed:

* Creating a column called ‘userSource’ and classifying the original users as ‘Original’
* Creating the new merged ‘BrandX’ users and classifying them as such.
* Creating a new user and classifying them as ‘PostMerge’, also setting ‘PostMerge’ as the default value for any new users.

Below is the code used for the merging:

-- Add the new column with the default value

ALTER TABLE smartwatch\_.Users

ADD COLUMN userSource ENUM('Original','BrandX','PostMerge') DEFAULT 'PostMerge'; -----------------------------------------------------------------------------------------------------------------

-- Update existing rows to set the default value

UPDATE smartwatch\_.Users

SET userSource = 'Original';

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-- Insert new records from source into target and mark them as source data--

INSERT INTO smartwatch\_.BrandXUsers.Users (col1, col2, col3 ,col4, col5, col6, col7, col8, col9, 'Original')

-----------------------------------------------------------------------------------------------------------------

-- Mark existing data in the target table as 'Target'

UPDATE smartwatch\_.Users

SET userSource = 'Original';

SELECT col1, col2, col3 ,col4, col5, col6, col7, col8, col9, 'Original'

FROM BrandX.Users src

WHERE NOT EXISTS (

SELECT 1

FROM smartwatch\_.Users tgt

WHERE tgt.username = src.username

);

-----------------------------------------------------------------------------------------------------------------

-- Update existing records in "smartwatch\_" with data from "BrandX" and mark them as source data

UPDATE tgt

SET tgt.col1 = src.col1,tgt.col2 = src.col2,tgt.col3 = src.col3,tgt.col4 = src.col4,tgt.col5 = src.col5,tgt.col6 = src.col6,tgt.col7 = src.col7,tgt.col8 = src.col8,tgt.col9 = src.col9,tgt.userSource = 'Source'

FROM smartwatch\_.Users tgt

JOIN BrandX.Users src ON tgt.username = src.username

;

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the modified query used to import BrandX user's data

INSERT INTO `users`(`Nickname`, `Gender`, `Height`, `Weight`, `Birthday`, `Email`, `Password`, `PhoneNumber`, `userSource`)

VALUES

('Bowser', 'Male', 200, 500, '1985-09-13', 'bowser@gmail.com', 'koopaking', '+60121234567','BrandX'),

('Chell', 'Female', 170, 60, '1985-02-14', 'chell@gmail.com', 'portalgun', '+60132345678','BrandX'),

('Dovahkiin', 'Male', 180, 80, '1986-08-06', 'dovahkiin@gmail.com', 'fusrodah', '+60143456789','BrandX'),

('EzioAuditore', 'Male', 180, 75, '2007-11-17', 'ezio.auditore@gmail.com', 'assassino', '+60154567890','BrandX'),

('IsaacClarke', 'Male', 185, 85, '1984-03-22', 'isaac@gmail.com', 'deadsp4ce', '+60165678901','BrandX'),

('JillValentine', 'Female', 170, 60, '1979-06-28', 'jill@rpd.com', 'stars', '+60176789012','BrandX'),

('Kerrigan', 'Female', 180, 65, '1988-11-03', 'kerrigan@outlook.com', 'queenofblades', '+60187890123','BrandX'),

('MaxCaulfield', 'Female', 165, 55, '1995-09-21', 'max@hotmail.com', 'timepower', '+60198901234','BrandX'),

('NathanDrake', 'Male', 178, 80, '2007-11-19', 'nathan.drake@outlook.com', 'uncharted', '+60101012345','BrandX'),

('PhoenixWright', 'Male', 180, 75, '1976-10-04', 'phoenix@yahoo.com', 'objection', '+60111223456','BrandX'),

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the query used to add a new user after merge.

INSERT INTO `users`(`Nickname`, `Gender`, `Height`, `Weight`, `Birthday`, `Email`, `Password`, `PhoneNumber`)

VALUES

('Cortana', 'Female', 170, 55, '2002-10-20', 'cortana@hotmail.com', 'haloAI', '+60135579246');

**Creation of Table Data:**

-- Alarms

CREATE TABLE Alarms (

AlarmID int NOT NULL AUTO\_INCREMENT,

UserID int NOT NULL,

AlarmName varchar(30) NOT NULL,

Time time NOT NULL,

CONSTRAINT Alarms\_pk PRIMARY KEY (AlarmID)

);

-- Badges

CREATE TABLE Badges (

BadgeID int NOT NULL AUTO\_INCREMENT,

BadgeName varchar(50) NOT NULL,

Requirement varchar(100) NOT NULL,

CategoryName varchar(30) NOT NULL,

CONSTRAINT Badges\_pk PRIMARY KEY (BadgeID)

);

-- BadgesUnlocked

CREATE TABLE BadgesUnlocked (

UserID int NOT NULL,

BadgesID int NOT NULL,

CONSTRAINT BadgesUnlocked\_pk PRIMARY KEY (UserID,BadgesID)

);

-- BloodOxygenLevel

CREATE TABLE BloodOxygenLevel (

OxygenLevelID int NOT NULL AUTO\_INCREMENT,

OxygenSaturationLevel int NOT NULL,

TimeStamp timestamp NOT NULL,

CONSTRAINT BloodOxygenLevel\_pk PRIMARY KEY (OxygenLevelID)

);

-- ExerciseType

CREATE TABLE ExerciseType (

ExerciseTypeID int NOT NULL AUTO\_INCREMENT,

ExerciseCategory varchar(30) NOT NULL,

CONSTRAINT ExerciseType\_pk PRIMARY KEY (ExerciseTypeID)

);

-- Exercises

CREATE TABLE Exercises (

ExerciseID int NOT NULL AUTO\_INCREMENT,

ExerciseTypeID int NOT NULL,

ExerciseName varchar(30) NOT NULL,

Equipment bool NOT NULL,

Difficulty enum('easy','medium',hard',advanced') NOT NULL,

CONSTRAINT Exercises\_pk PRIMARY KEY (ExerciseID)

);

-- HeartRate

CREATE TABLE HeartRate (

HeartRateID int NOT NULL AUTO\_INCREMENT,

UserExerciseID int NULL,

UserID int NULL,

HeartRateValue int NOT NULL,

TimeStamp timestamp NOT NULL,

CONSTRAINT HeartRate\_pk PRIMARY KEY (HeartRateID)

);

-- MenuAccessed

CREATE TABLE MenuAccessed (

MenuActivityID int NOT NULL AUTO\_INCREMENT,

UserID int NOT NULL,

MenuName varchar(20) NOT NULL,

StartTime timestamp NOT NULL,

Duration time NOT NULL,

CONSTRAINT MenuAccessed\_pk PRIMARY KEY (MenuActivityID)

);

-- PurchaseWatchFace

CREATE TABLE PurchaseWatchFace (

UserID int NOT NULL,

WatchfaceID int NOT NULL,

CONSTRAINT PurchaseWatchFace\_pk PRIMARY KEY (UserID,WatchfaceID)

);

-- Sleep

CREATE TABLE Sleep (

SleepID int NOT NULL AUTO\_INCREMENT,

UserExerciseID int NOT NULL,

TimeWindow timestamp NOT NULL,

SleepType enum( 'light sleep', 'deep sleep','rem sleep') NOT NULL,

CONSTRAINT Sleep\_pk PRIMARY KEY (SleepID)

);

-- StepCount

CREATE TABLE StepCount (

StepCountID int NOT NULL AUTO\_INCREMENT,

ExerciseID int NOT NULL,

StepCount int NOT NULL,

CONSTRAINT StepCount\_pk PRIMARY KEY (StepCountID)

);

-- UserExercise

CREATE TABLE UserExercise (

UserExerciseID int NOT NULL AUTO\_INCREMENT,

UserID int NOT NULL,

ExerciseID int NOT NULL,

DistanceTravelled int NULL,

OxygenLevelID int NOT NULL,

CalorieBurnt int NOT NULL,

StartTime timestamp NOT NULL,

EndTime timestamp NULL,

CONSTRAINT UserExercise\_pk PRIMARY KEY (UserExerciseID)

);

-- UserHistory

CREATE TABLE UserHistory (

LogID int NOT NULL AUTO\_INCREMENT,

UserID int NOT NULL,

LastLoginDate date NOT NULL,

CONSTRAINT UserHistory\_pk PRIMARY KEY (LogID)

);

-- UserPreference

CREATE TABLE UserPreference (

UserPreferenceID int NOT NULL AUTO\_INCREMENT,

UserID int NOT NULL,

WatchfaceID int NOT NULL,

CONSTRAINT UserPreference\_pk PRIMARY KEY (UserPreferenceID)

);

-- Users

CREATE TABLE Users (

UserID int NOT NULL AUTO\_INCREMENT,

Nickname varchar(20) NOT NULL,

Gender enum('male','female') NOT NULL,

Height int NULL,

Birthday date NULL,

Email varchar(50) NOT NULL,

Password int NOT NULL,

PhoneNumber int NULL,

Weight int NULL,

userSource enum('Original','BrandX','PostMerge') DEFAULT 'PostMerge'

CONSTRAINT Users\_pk PRIMARY KEY (UserID)

);

-- WatchFace

CREATE TABLE WatchFace (

WatchfaceID int NOT NULL AUTO\_INCREMENT,

WatchfaceName varchar(50) NOT NULL,

WatchfaceColour varchar(20) NOT NULL,

CONSTRAINT WatchFace\_pk PRIMARY KEY (WatchfaceID)

);

-- foreign keys

-- Alarms\_User (table: Alarms)

ALTER TABLE Alarms ADD CONSTRAINT Alarms\_User FOREIGN KEY Alarms\_User (UserID)

REFERENCES Users (UserID);

-- BadgesUnlocked\_Badges (table: BadgesUnlocked)

ALTER TABLE BadgesUnlocked ADD CONSTRAINT BadgesUnlocked\_Badges FOREIGN KEY BadgesUnlocked\_Badges (BadgesID)

REFERENCES Badges (BadgeID);

-- BadgesUnlocked\_User (table: BadgesUnlocked)

ALTER TABLE BadgesUnlocked ADD CONSTRAINT BadgesUnlocked\_User FOREIGN KEY BadgesUnlocked\_User (UserID)

REFERENCES Users (UserID);

-- Exercises\_ExerciseType (table: Exercises)

ALTER TABLE Exercises ADD CONSTRAINT Exercises\_ExerciseType FOREIGN KEY Exercises\_ExerciseType (ExerciseTypeID)

REFERENCES ExerciseType (ExerciseTypeID);

-- HeartRate\_UserExercise (table: HeartRate)

ALTER TABLE HeartRate ADD CONSTRAINT HeartRate\_UserExercise FOREIGN KEY HeartRate\_UserExercise (UserExerciseID)

REFERENCES UserExercise (UserExerciseID);

-- HeartRate\_Users (table: HeartRate)

ALTER TABLE HeartRate ADD CONSTRAINT HeartRate\_Users FOREIGN KEY HeartRate\_Users (UserID)

REFERENCES Users (UserID);

-- MenuAccessed\_User (table: MenuAccessed)

ALTER TABLE MenuAccessed ADD CONSTRAINT MenuAccessed\_User FOREIGN KEY MenuAccessed\_User (UserID)

REFERENCES Users (UserID);

-- PurchaseWatchFace\_User (table: PurchaseWatchFace)

ALTER TABLE PurchaseWatchFace ADD CONSTRAINT PurchaseWatchFace\_User FOREIGN KEY PurchaseWatchFace\_User (UserID)

REFERENCES Users (UserID);

-- PurchaseWatchFace\_WatchFace (table: PurchaseWatchFace)

ALTER TABLE PurchaseWatchFace ADD CONSTRAINT PurchaseWatchFace\_WatchFace FOREIGN KEY PurchaseWatchFace\_WatchFace (WatchfaceID)

REFERENCES WatchFace (WatchfaceID);

-- Sleep\_UserExercise (table: Sleep)

ALTER TABLE Sleep ADD CONSTRAINT Sleep\_UserExercise FOREIGN KEY Sleep\_UserExercise (UserExerciseID)

REFERENCES UserExercise (UserExerciseID);

-- StepCount\_Exercises (table: StepCount)

ALTER TABLE StepCount ADD CONSTRAINT StepCount\_Exercises FOREIGN KEY StepCount\_Exercises (ExerciseID)

REFERENCES Exercises (ExerciseID);

-- UserExercise\_BloodOxygenLevel (table: UserExercise)

ALTER TABLE UserExercise ADD CONSTRAINT UserExercise\_BloodOxygenLevel FOREIGN KEY UserExercise\_BloodOxygenLevel (OxygenLevelID)

REFERENCES BloodOxygenLevel (OxygenLevelID);

-- UserExercise\_Exercises (table: UserExercise)

ALTER TABLE UserExercise ADD CONSTRAINT UserExercise\_Exercises FOREIGN KEY UserExercise\_Exercises (ExerciseID)

REFERENCES Exercises (ExerciseID);

-- UserExercise\_User (table: UserExercise)

ALTER TABLE UserExercise ADD CONSTRAINT UserExercise\_User FOREIGN KEY UserExercise\_User (UserID)

REFERENCES Users (UserID);

-- UserHistory\_UserID (table: UserHistory)

ALTER TABLE UserHistory ADD CONSTRAINT UserHistory\_UserID FOREIGN KEY UserHistory\_UserID (UserID)

REFERENCES Users (UserID);

-- UserPreference\_User (table: UserPreference)

ALTER TABLE UserPreference ADD CONSTRAINT UserPreference\_User FOREIGN KEY UserPreference\_User (UserID)

REFERENCES Users (UserID);

-- UserPreference\_WatchFace (table: UserPreference)

ALTER TABLE UserPreference ADD CONSTRAINT UserPreference\_WatchFace FOREIGN KEY UserPreference\_WatchFace (WatchfaceID)

REFERENCES WatchFace (WatchfaceID);

**Insertion of Table Data:**

INSERT INTO `alarms` (`AlarmID`, `UserID`, `AlarmName`, `Time`) VALUES

(1, 1, 'Morning Jog', '08:00:00'),

(2, 2, 'Workout Reminder', '07:30:00'),

(3, 3, 'Breakfast Time', '08:00:00'),

(4, 4, 'Medication Reminder', '05:00:00'),

(5, 5, 'Water Break', '10:00:00'),

(6, 6, 'Lunch Time', '12:00:00'),

(7, 7, 'Afternoon Stretch', '14:00:00'),

(8, 8, 'Gym Reminder', '15:30:00'),

(9, 9, 'Snack Time', '16:00:00'),

(10, 10, 'Snack Time', '18:00:00'),

(11, 11, 'Dinner Time', '19:00:00'),

(12, 12, 'Evening Walk', '19:30:00'),

(13, 13, 'Gaining Time', '20:00:00'),

(14, 14, 'Workout Time', '21:00:00'),

(15, 15, 'Bedtime Reminder', '22:00:00'),

(16, 16, 'Wash gym clothes', '20:30:00'),

(17, 17, 'Drink Water', '17:00:00'),

(18, 18, 'Exercise Time', '19:30:00'),

(19, 19, 'Exercise Class', '17:30:00'),

(20, 20, 'Squat Reminder', '08:30:00');

INSERT INTO `badges` (`BadgeID`, `BadgeName`, `Requirement`, `CategoryName`) VALUES

(1, 'Marathonner', 'Complete a marathon (42km)', 'Endurance'),

(2, 'Sprinter', 'Run 100 meters in under 10 seconds', 'Speed'),

(3, 'Walker', 'Walk 10,000 steps in a day', 'Activity'),

(4, 'Swimmer', 'Swim 1km without stopping', 'Endurance'),

(5, 'Weightlifter', 'Lift your body weight in bench press', 'Strength'),

(6, 'Yoga-er', 'Complete 30 consecutive days of yoga practice', 'Consistency'),

(7, 'HIIT Master', 'Complete a high-intensity interval training session', 'Intensity'),

(8, 'Mountain Climber', 'Climb a mountain over 2000 meters', 'Adventure'),

(9, 'Cycler', 'Bike 10 km in a single ride', 'Endurance'),

(10, 'Step Master', 'Reach 100,000 steps in a week', 'Activity'),

(11, 'Trailblazer', 'Hike 20 km in a single day', 'Endurance'),

(12, 'Pilater', 'Master all pilates exercises', 'Flexibility'),

(13, 'Gym-er', 'Work out at the gym 5 days a week for a month', 'Consistency'),

(14, 'Calisthenic-er', 'Complete 100 consecutive push-ups', 'Strength'),

(15, 'Meditation Master', 'Meditate for 30 minutes daily for a month', 'Mindfulness'),

(16, 'Healthy Eater', 'Eat 5 servings of fruits and vegetables daily for a month', 'Nutrition'),

(17, 'Fitness Fanatic-er', 'Attend 30 fitness classes in a month', 'Consistency'),

(18, 'Dare-er', 'Complete a tough obstacle course race', 'Adventure'),

(19, 'Zumba Dancer', 'Dance in a Zumba class for 1 hour', 'Fun'),

(20, 'Martial Artist', 'Earn a black belt in any martial art', 'Discipline');

INSERT INTO `badgesunlocked` (`UserID`, `BadgesID`) VALUES

(1, 1),

(2, 4),

(3, 9),

(4, 5),

(5, 6),

(6, 12),

(7, 17),

(8, 5),

(9, 7),

(10, 3),

(11, 16),

(12, 18),

(13, 19),

(14, 20),

(15, 11),

(16, 8),

(17, 13),

(18, 17),

(19, 18),

(20, 18);

INSERT INTO `bloodoxygenlevel` (`OxygenLevelID`, `TimeStamp`, `OxygenSaturationLevel`) VALUES

(1, '2024-03-06 22:30:00', 98),

(2, '2024-03-06 23:15:00', 97),

(3, '2024-03-06 23:30:00', 95),

(4, '2024-03-07 00:15:00', 96),

(5, '2024-03-07 00:30:00', 98),

(6, '2024-03-07 01:00:00', 99),

(7, '2024-03-07 01:30:00', 97),

(8, '2024-03-07 02:15:00', 98),

(9, '2024-03-07 02:30:00', 96),

(10, '2024-03-07 03:15:00', 95),

(11, '2024-03-07 03:30:00', 97),

(12, '2024-03-07 04:15:00', 98),

(13, '2024-03-07 04:45:00', 99),

(14, '2024-03-07 05:00:00', 98),

(15, '2024-03-07 06:00:00', 96),

(16, '2024-03-07 06:30:00', 97),

(17, '2024-03-07 06:45:00', 98),

(18, '2024-03-07 07:00:00', 95),

(19, '2024-03-07 07:30:00', 96),

(20, '2024-03-07 08:00:00', 97),

(21, '2024-03-07 23:45:00', 98),

(22, '2024-03-07 22:30:00', 99),

(23, '2024-03-08 00:15:00', 97),

(24, '2024-03-08 01:30:00', 98),

(25, '2024-03-08 02:45:00', 96),

(26, '2024-03-08 03:45:00', 95),

(27, '2024-03-08 05:00:00', 97),

(28, '2024-03-08 06:15:00', 98),

(29, '2024-03-08 07:30:00', 99),

(30, '2024-03-08 08:45:00', 98),

(31, '2024-03-08 10:00:00', 96),

(32, '2024-03-08 11:15:00', 97),

(33, '2024-03-08 12:30:00', 98),

(34, '2024-03-08 13:45:00', 95),

(35, '2024-03-08 15:00:00', 96),

(36, '2024-03-08 16:15:00', 97),

(37, '2024-03-08 17:30:00', 98),

(38, '2024-03-08 18:45:00', 99),

(39, '2024-03-08 20:00:00', 98),

(40, '2024-03-08 21:15:00', 96),

(41, '2024-03-07 02:00:00', 98),

(42, '2024-03-07 01:45:00', 99),

(43, '2024-03-07 02:30:00', 99),

(44, '2024-03-07 04:00:00', 97),

(45, '2024-03-06 17:00:00', 98);

INSERT INTO `exercises` (`ExerciseID`, `ExerciseTypeID`, `ExerciseName`, `Equipment`, `Difficulty`) VALUES

(1, 1, 'Morning Run', 'No', 'medium'),

(2, 2, 'Freestyle Swimming', 'No', 'hard'),

(3, 3, 'Stationary Bike', 'Yes', 'easy'),

(4, 4, 'Dumbbell Squats', 'Yes', 'medium'),

(5, 5, 'Vinyasa Flow Yoga', 'Yes', 'medium'),

(6, 6, 'Mat Pilates', 'Yes', 'easy'),

(7, 7, 'Tabata Workout', 'No', 'hard'),

(8, 8, 'Deadlifts', 'Yes', 'advanced'),

(9, 9, 'Boxing Training', 'Yes', 'medium'),

(10, 10, 'Brisk Walk', 'No', 'easy'),

(11, 11, 'Rowing Machine', 'Yes', 'hard'),

(12, 12, 'Circuit Training', 'Yes', 'medium'),

(13, 13, 'Zumba Dance', 'No', 'medium'),

(14, 14, 'Karate', 'No', 'hard'),

(15, 15, 'Trail Hike', 'No', 'medium'),

(16, 16, 'Indoor Rock Climbing', 'Yes', 'advanced'),

(17, 17, 'Jump Rope', 'Yes', 'medium'),

(18, 18, 'Jackknife', 'No', 'medium'),

(19, 19, 'Downhill Skiing', 'Yes', 'hard'),

(20, 20, 'Snowboarding Tricks', 'Yes', 'hard'),

(21, 21, 'Sleeping', 'No', 'easy');

INSERT INTO `exercisetype` (`ExerciseTypeID`, `ExerciseCategory`) VALUES

(1, 'Running'),

(2, 'Swimming'),

(3, 'Cycling'),

(4, 'Weightlifting'),

(5, 'Yoga'),

(6, 'Pilates'),

(7, 'HIIT'),

(8, 'CrossFit'),

(9, 'Boxing'),

(10, 'Walking'),

(11, 'Rowing'),

(12, 'Circuit Training'),

(13, 'Dancing'),

(14, 'Martial Arts'),

(15, 'Hiking'),

(16, 'Rock Climbing'),

(17, 'Jump Rope'),

(18, 'Jackknife'),

(19, 'Skiing'),

(20, 'Snowboarding'),

(21, 'Sleep');

INSERT INTO `heartrate` (`HeartRateID`, `UserExerciseID`, `UserID`, `TimeStamp`, `HeartRateValue`) VALUES

(1, 1, NULL, '2024-03-06 22:30:00', 75),

(2, 2, NULL, '2024-03-06 23:15:00', 80),

(3, 3, NULL, '2024-03-06 23:30:00', 78),

(4, 4, NULL, '2024-03-07 00:15:00', 82),

(5, 5, NULL, '2024-03-07 00:30:00', 85),

(6, 6, NULL, '2024-03-07 01:00:00', 90),

(7, 7, NULL, '2024-03-07 01:30:00', 88),

(8, 8, NULL, '2024-03-07 02:15:00', 86),

(9, 9, NULL, '2024-03-07 02:30:00', 84),

(10, 10, NULL, '2024-03-07 03:15:00', 87),

(11, 11, NULL, '2024-03-07 03:30:00', 92),

(12, 12, NULL, '2024-03-07 04:15:00', 95),

(13, 13, NULL, '2024-03-07 04:45:00', 98),

(14, 14, NULL, '2024-03-07 05:00:00', 96),

(15, 15, NULL, '2024-03-07 06:00:00', 94),

(16, 16, NULL, '2024-03-07 06:30:00', 91),

(17, 17, NULL, '2024-03-07 06:45:00', 89),

(18, 18, NULL, '2024-03-07 07:00:00', 87),

(19, 19, NULL, '2024-03-07 07:30:00', 85),

(20, 20, NULL, '2024-03-07 08:00:00', 83),

(21, 21, NULL, '2024-03-07 21:00:00', 88),

(22, 22, NULL, '2024-03-07 21:15:00', 92),

(23, 23, NULL, '2024-03-07 21:30:00', 94),

(24, 24, NULL, '2024-03-07 21:45:00', 90),

(25, 25, NULL, '2024-03-07 22:00:00', 85),

(26, 26, NULL, '2024-03-07 22:15:00', 87),

(27, 27, NULL, '2024-03-07 22:30:00', 91),

(28, 28, NULL, '2024-03-07 22:45:00', 95),

(29, 29, NULL, '2024-03-07 23:00:00', 98),

(30, 30, NULL, '2024-03-07 23:15:00', 96),

(31, 31, NULL, '2024-03-07 23:30:00', 93),

(32, 32, NULL, '2024-03-07 23:45:00', 89),

(33, 33, NULL, '2024-03-08 00:00:00', 86),

(34, 34, NULL, '2024-03-08 00:15:00', 84),

(35, 35, NULL, '2024-03-08 00:30:00', 82),

(36, 36, NULL, '2024-03-08 00:45:00', 80),

(37, 37, NULL, '2024-03-08 01:00:00', 78),

(38, 38, NULL, '2024-03-08 01:15:00', 76),

(39, 39, NULL, '2024-03-08 01:30:00', 79),

(40, 40, NULL, '2024-03-08 01:45:00', 81),

(41, 41, NULL, '2024-03-08 02:00:00', 82),

(42, 42, NULL, '2024-03-08 01:45:00', 90),

(43, 43, NULL, '2024-03-08 02:30:00', 84),

(44, 44, NULL, '2024-03-08 04:00:00', 87),

(45, 45, NULL, '2024-03-07 17:00:00', 81),

(46, NULL, 1, '2024-03-07 00:30:00', 100),

(47, NULL, 2, '2024-03-07 01:45:00', 90),

(48, 1, NULL, '2024-03-06 22:10:00', 88),

(49, NULL, 4, '2024-03-07 04:30:00', 101),

(50, NULL, 5, '2024-03-07 06:45:00', 111);

INSERT INTO `menuaccessed` (`MenuActivityID`, `UserID`, `MenuName`, `StartTime`, `duration`) VALUES

(1, 1, 'User profile', '2024-03-07 02:00:00', '00:10:00'),

(2, 2, 'Settings', '2024-03-20 03:00:00', '00:02:00'),

(3, 3, 'Home', '2024-03-21 04:00:00', '00:00:30'),

(4, 4, 'Workouts', '2024-03-19 02:00:00', '01:00:00'),

(5, 5, 'Statistics', '2024-03-16 05:30:00', '00:04:00'),

(6, 6, 'Workout History', '2024-03-14 07:45:00', '00:15:00'),

(7, 7, 'Badges', '2024-03-13 09:55:00', '00:03:00'),

(8, 8, 'Feedback', '2024-03-11 00:05:00', '00:15:00'),

(9, 9, 'Support', '2024-02-29 16:02:00', '00:30:00'),

(10, 10, 'Together', '2024-03-05 16:25:00', '01:30:00'),

(11, 11, 'Badges', '2024-03-07 16:20:50', '00:10:00'),

(12, 12, 'Weekly summary', '2024-03-17 16:00:50', '00:05:00'),

(13, 13, 'Statistics', '2024-03-27 11:00:00', '00:00:20'),

(14, 14, 'For you page', '2024-03-30 02:09:00', '00:00:10'),

(15, 15, 'Terms and conditions', '2024-03-23 03:19:10', '00:00:01'),

(16, 16, 'Privacy', '2024-03-21 17:02:13', '00:00:10'),

(17, 17, 'Events', '2024-03-01 17:02:03', '00:00:45'),

(18, 18, 'User profile', '2024-03-02 16:01:01', '00:01:30'),

(19, 19, 'Notices', '2024-03-11 01:49:00', '00:00:30'),

(20, 20, 'Settings', '2024-03-21 12:29:00', '00:50:00');

INSERT INTO `purchasewatchface` (`UserID`, `WatchfaceID`) VALUES

(1, 1),

(1, 2),

(1, 3),

(1, 7),

(2, 1),

(2, 2),

(3, 2),

(3, 3),

(4, 1),

(4, 2),

(4, 4),

(4, 7),

(5, 5),

(6, 1),

(6, 2),

(6, 6),

(7, 3),

(7, 7),

(8, 1),

(8, 8),

(9, 2),

(9, 9),

(10, 3),

(10, 10),

(11, 11),

(12, 12),

(13, 13),

(14, 1),

(14, 14),

(15, 2),

(15, 15),

(16, 3),

(16, 16),

(17, 1),

(17, 17),

(18, 2),

(18, 18),

(19, 3),

(19, 19),

(20, 1),

(20, 20);

INSERT INTO `sleep` (`SleepID`, `UserExerciseID`, `TimeWindow`, `SleepType`) VALUES

(1, 21, '2024-03-07 14:00:00', 'Light sleep'),

(2, 21, '2024-03-07 15:30:00', 'Deep sleep'),

(3, 21, '2024-03-07 17:30:00', 'REM sleep'),

(4, 22, '2024-03-07 14:15:00', 'Light sleep'),

(5, 22, '2024-03-07 15:45:00', 'Deep sleep'),

(6, 22, '2024-03-07 17:45:00', 'REM sleep'),

(7, 23, '2024-03-07 14:30:00', 'Light sleep'),

(8, 23, '2024-03-07 16:00:00', 'Deep sleep'),

(9, 23, '2024-03-07 18:00:00', 'REM sleep'),

(10, 24, '2024-03-07 14:45:00', 'Light sleep'),

(11, 24, '2024-03-07 16:15:00', 'Deep sleep'),

(12, 24, '2024-03-07 18:15:00', 'REM sleep'),

(13, 25, '2024-03-07 15:00:00', 'Light sleep'),

(14, 25, '2024-03-07 16:30:00', 'Deep sleep'),

(15, 25, '2024-03-07 18:30:00', 'REM sleep'),

(16, 26, '2024-03-07 15:15:00', 'Light sleep'),

(17, 26, '2024-03-07 16:45:00', 'Deep sleep'),

(18, 26, '2024-03-07 18:45:00', 'REM sleep'),

(19, 27, '2024-03-07 15:30:00', 'Light sleep'),

(20, 27, '2024-03-07 17:00:00', 'Deep sleep'),

(21, 27, '2024-03-07 19:00:00', 'REM sleep'),

(22, 28, '2024-03-07 15:45:00', 'Light sleep'),

(23, 28, '2024-03-07 17:15:00', 'Deep sleep'),

(24, 28, '2024-03-07 19:15:00', 'REM sleep'),

(25, 29, '2024-03-07 17:30:00', 'Light sleep'),

(26, 29, '2024-03-07 19:30:00', 'Deep sleep'),

(27, 29, '2024-03-07 17:45:00', 'REM sleep'),

(28, 30, '2024-03-07 19:45:00', 'Light sleep'),

(29, 30, '2024-03-07 18:00:00', 'Deep sleep'),

(30, 30, '2024-03-07 20:00:00', 'REM sleep'),

(31, 31, '2024-03-07 18:15:00', 'Light sleep'),

(32, 31, '2024-03-07 20:15:00', 'Deep sleep'),

(33, 31, '2024-03-07 18:30:00', 'REM sleep'),

(34, 32, '2024-03-07 20:30:00', 'Light sleep'),

(35, 32, '2024-03-07 18:45:00', 'Deep sleep'),

(36, 32, '2024-03-07 20:45:00', 'REM sleep'),

(37, 33, '2024-03-07 19:00:00', 'Light sleep'),

(38, 33, '2024-03-07 21:00:00', 'Deep sleep'),

(39, 33, '2024-03-07 19:15:00', 'REM sleep'),

(40, 34, '2024-03-07 21:15:00', 'Light sleep'),

(41, 34, '2024-03-07 19:30:00', 'Deep sleep'),

(42, 34, '2024-03-07 21:30:00', 'REM sleep'),

(43, 35, '2024-03-07 19:45:00', 'Light sleep'),

(44, 35, '2024-03-07 21:45:00', 'Deep sleep'),

(45, 35, '2024-03-07 20:00:00', 'REM sleep'),

(46, 36, '2024-03-07 22:00:00', 'Light sleep'),

(47, 36, '2024-03-07 20:15:00', 'Deep sleep'),

(48, 36, '2024-03-07 22:15:00', 'REM sleep'),

(49, 37, '2024-03-07 20:30:00', 'Light sleep'),

(50, 37, '2024-03-07 22:30:00', 'Deep sleep'),

(51, 37, '2024-03-07 20:45:00', 'REM sleep'),

(52, 38, '2024-03-07 22:45:00', 'Light sleep'),

(53, 38, '2024-03-07 21:00:00', 'Deep sleep'),

(54, 38, '2024-03-07 23:00:00', 'REM sleep'),

(55, 39, '2024-03-07 21:15:00', 'Light sleep'),

(56, 39, '2024-03-07 23:15:00', 'Deep sleep'),

(57, 39, '2024-03-07 21:30:00', 'REM sleep'),

(58, 40, '2024-03-07 23:30:00', 'Light sleep'),

(59, 40, '2024-03-07 21:45:00', 'Deep sleep'),

(60, 40, '2024-03-07 23:45:00', 'REM sleep');

INSERT INTO `stepcount` (`StepCountID`, `ExerciseID`, `StepCount`, `StartTime`, `EndTime`) VALUES

(1, 1, 3949, '2024-03-07 00:00:00', '2024-03-07 00:30:00'),

(2, 2, 1900, '2024-03-07 01:15:00', '2024-03-07 02:00:00'),

(3, 3, 3400, '2024-03-07 05:45:00', '2024-03-07 07:00:00'),

(4, 4, 4200, '2024-03-07 04:15:00', '2024-03-07 05:45:00'),

(5, 5, 2700, '2024-03-07 06:00:00', '2024-03-07 07:15:00'),

(6, 6, 3850, '2024-03-07 07:30:00', '2024-03-07 08:45:00'),

(7, 7, 2150, '2024-03-07 09:00:00', '2024-03-07 10:15:00'),

(8, 8, 4900, '2024-03-07 10:30:00', '2024-03-07 11:45:00'),

(9, 9, 3700, '2024-03-07 12:00:00', '2024-03-07 13:15:00'),

(10, 10, 2800, '2024-03-07 13:30:00', '2024-03-07 14:45:00'),

(11, 11, 4200, '2024-03-07 15:00:00', '2024-03-07 16:15:00'),

(12, 12, 3100, '2024-03-07 16:30:00', '2024-03-07 17:45:00'),

(13, 13, 3600, '2024-03-07 18:00:00', '2024-03-07 19:15:00'),

(14, 14, 2450, '2024-03-07 19:30:00', '2024-03-07 20:45:00'),

(15, 15, 4100, '2024-03-07 21:00:00', '2024-03-07 22:15:00'),

(16, 16, 3300, '2024-03-07 22:30:00', '2024-03-07 23:45:00'),

(17, 17, 2800, '2024-03-08 00:00:00', '2024-03-08 01:15:00'),

(18, 18, 3900, '2024-03-08 01:30:00', '2024-03-08 02:45:00'),

(19, 19, 4550, '2024-03-08 03:00:00', '2024-03-08 04:15:00'),

(20, 20, 2950, '2024-03-08 04:30:00', '2024-03-08 05:45:00');

INSERT INTO `userexercise` (`UserExerciseID`, `UserID`, `ExerciseID`, `OxygenLevelID`, `CalorieBurnt`, `DistanceTravelled`, `StartTime`, `EndTime`) VALUES

(1, 1, 1, 1, 400, 5000, '2024-03-06 22:00:00', '2024-03-06 22:30:00'),

(2, 2, 2, 2, 263, 1500, '2024-03-06 22:30:00', '2024-03-06 23:15:00'),

(3, 3, 3, 3, 210, 10000, '2024-03-06 23:00:00', '2024-03-06 23:30:00'),

(4, 4, 4, 4, 131, 8000, '2024-03-06 23:30:00', '2024-03-07 00:15:00'),

(5, 5, 5, 5, 105, 6000, '2024-03-07 00:00:00', '2024-03-07 00:30:00'),

(6, 6, 6, 6, 123, 2000, '2024-03-07 00:30:00', '2024-03-07 01:00:00'),

(7, 7, 7, 7, 225, 3000, '2024-03-07 01:00:00', '2024-03-07 01:30:00'),

(8, 8, 8, 8, 263, 4000, '2024-03-07 01:30:00', '2024-03-07 02:15:00'),

(9, 9, 9, 9, 140, 7000, '2024-03-07 02:00:00', '2024-03-07 02:30:00'),

(10, 10, 10, 10, 220, 5500, '2024-03-07 02:30:00', '2024-03-07 03:15:00'),

(11, 11, 11, 11, 180, 9000, '2024-03-07 03:00:00', '2024-03-07 03:30:00'),

(12, 12, 12, 12, 263, 7500, '2024-03-07 03:30:00', '2024-03-07 04:15:00'),

(13, 13, 13, 13, 175, 8500, '2024-03-07 04:00:00', '2024-03-07 04:45:00'),

(14, 14, 14, 14, 188, 4200, '2024-03-07 04:30:00', '2024-03-07 05:00:00'),

(15, 15, 15, 15, 420, 6300, '2024-03-07 05:00:00', '2024-03-07 06:00:00'),

(16, 16, 16, 16, 560, 7800, '2024-03-07 05:30:00', '2024-03-07 06:30:00'),

(17, 17, 17, 17, 540, 5700, '2024-03-07 06:00:00', '2024-03-07 06:45:00'),

(18, 18, 18, 18, 105, 4900, '2024-03-07 06:30:00', '2024-03-07 07:00:00'),

(19, 19, 19, 19, 420, 8200, '2024-03-07 07:00:00', '2024-03-07 07:30:00'),

(20, 20, 20, 20, 315, 6800, '2024-03-07 07:30:00', '2024-03-07 08:00:00'),

(21, 1, 21, 21, 400, 0, '2024-03-07 13:00:00', '2024-03-07 21:00:00'),

(22, 2, 21, 21, 400, 0, '2024-03-07 13:15:00', '2024-03-07 21:15:00'),

(23, 3, 21, 21, 400, 0, '2024-03-07 13:30:00', '2024-03-07 21:30:00'),

(24, 4, 21, 21, 400, 0, '2024-03-07 13:45:00', '2024-03-07 21:45:00'),

(25, 5, 21, 21, 400, 0, '2024-03-07 14:00:00', '2024-03-07 22:00:00'),

(26, 6, 21, 21, 400, 0, '2024-03-07 14:15:00', '2024-03-07 22:15:00'),

(27, 7, 21, 21, 400, 0, '2024-03-07 14:30:00', '2024-03-07 22:30:00'),

(28, 8, 21, 21, 400, 0, '2024-03-07 14:45:00', '2024-03-07 22:45:00'),

(29, 9, 21, 21, 400, 0, '2024-03-07 15:00:00', '2024-03-07 23:00:00'),

(30, 10, 21, 21, 400, 0, '2024-03-07 15:15:00', '2024-03-07 23:15:00'),

(31, 11, 21, 21, 400, 0, '2024-03-07 15:30:00', '2024-03-07 23:30:00'),

(32, 12, 21, 21, 400, 0, '2024-03-07 15:45:00', '2024-03-07 23:45:00'),

(33, 13, 21, 21, 400, 0, '2024-03-07 16:00:00', '2024-03-08 00:00:00'),

(34, 14, 21, 21, 400, 0, '2024-03-07 16:15:00', '2024-03-08 00:15:00'),

(35, 15, 21, 21, 400, 0, '2024-03-07 16:30:00', '2024-03-08 00:30:00'),

(36, 16, 21, 21, 400, 0, '2024-03-07 16:45:00', '2024-03-08 00:45:00'),

(37, 17, 21, 21, 400, 0, '2024-03-07 17:00:00', '2024-03-08 01:00:00'),

(38, 18, 21, 21, 400, 0, '2024-03-07 17:15:00', '2024-03-08 01:15:00'),

(39, 19, 21, 21, 400, 0, '2024-03-07 17:30:00', '2024-03-08 01:30:00'),

(40, 20, 21, 21, 400, 0, '2024-03-07 17:45:00', '2024-03-08 01:45:00'),

(41, 5, 9, 41, 231, 0, '2024-03-08 01:00:00', '2024-03-08 02:00:00'),

(42, 6, 4, 42, 211, 0, '2024-03-08 01:15:00', '2024-03-08 01:45:00'),

(43, 8, 9, 43, 228, 0, '2024-03-08 02:00:00', '2024-03-08 02:30:00'),

(44, 11, 8, 44, 230, 0, '2024-03-08 03:15:00', '2024-03-08 04:00:00'),

(45, 12, 9, 45, 225, 0, '2024-03-08 04:00:00', '2024-03-07 17:00:00');

INSERT INTO `userhistory` (`LogID`, `UserID`, `LastLoginDate`) VALUES

(1, 1, '2024-03-07'),

(2, 2, '2024-03-07'),

(3, 3, '2024-03-07'),

(4, 4, '2024-03-07'),

(5, 5, '2024-03-07'),

(6, 6, '2024-03-07'),

(7, 7, '2024-03-07'),

(8, 8, '2024-03-07'),

(9, 9, '2024-03-07'),

(10, 10, '2024-03-07'),

(11, 11, '2024-03-07'),

(12, 12, '2024-03-07'),

(13, 13, '2024-03-07'),

(14, 14, '2024-03-07'),

(15, 15, '2024-03-07'),

(16, 16, '2024-03-07'),

(17, 17, '2024-03-07'),

(18, 18, '2024-03-07'),

(19, 19, '2024-03-07'),

(20, 20, '2024-03-07');

INSERT INTO `userpreference` (`UserPreferenceID`, `UserID`, `WatchfaceID`) VALUES

(1, 1, 1),

(2, 2, 2),

(3, 3, 3),

(4, 4, 4),

(5, 5, 5),

(6, 6, 6),

(7, 7, 7),

(8, 8, 8),

(9, 9, 9),

(10, 10, 10),

(11, 11, 11),

(12, 12, 12),

(13, 13, 13),

(14, 14, 14),

(15, 15, 15),

(16, 16, 16),

(17, 17, 17),

(18, 18, 18),

(19, 19, 19),

(20, 20, 20);

INSERT INTO `users` (`UserID`, `Nickname`, `Gender`, `Height`, `Weight`, `Birthday`, `Email`, `Password`, `PhoneNumber`, `userSource`) VALUES

(1, 'Mario', 'Male', 155, 70, '1985-09-13', 'mario@gmail.com', '1upmushroom', '+60123456789', 'Original'),

(2, 'Zelda', 'Female', 165, 55, '1986-02-21', 'zelda@hotmail.com', 'triforce', '+60198765432', 'Original'),

(3, 'MasterChief', 'Male', 190, 90, '2517-03-07', 'masterchief@outlook.com', 'halo123', '+60111223344', 'Original'),

(4, 'LaraCroft', 'Female', 175, 65, '1996-10-25', 'lara.croft@yahoo.com', 'tombraider', '+60195428763', 'Original'),

(5, 'Sonic', 'Male', 100, 35, '1991-06-23', 'sonic@gmail.com', 'gottagofast', '+60135579246', 'Original'),

(6, 'Samus', 'Female', 185, 80, '1986-08-06', 'samus@live.com', 'metroid123', '+60176813429', 'Original'),

(7, 'Link', 'Male', 170, 75, '1986-02-21', 'link@yahoomail.com', 'hyrule', '+60104467823', 'Original'),

(8, 'Kratos', 'Male', 180, 100, '2005-03-22', 'kratos@outlook.com', 'spartan', '+60112345678', 'Original'),

(9, 'NathanDrake', 'Male', 178, 80, '2007-11-19', 'nathan.drake@gmail.com', 'uncharted', '+60123456789', 'Original'),

(10, 'ChunLi', 'Female', 165, 55, '1991-02-14', 'chun.li@hotmail.com', 'spinningbirdkick', '+60134567890', 'Original'),

(11, 'Snake', 'Male', 180, 80, '1987-07-12', 'snake@outlook.com', 'solid', '+60167892345', 'Original'),

(12, 'Pikachu', 'Male', 40, 6, '1996-02-27', 'pikachu@yahoo.com', 'pika', '+60189043276', 'Original'),

(13, 'Yoshi', 'Male', 100, 50, '1990-08-14', 'yoshi@gmail.com', 'eggs', '+60122334567', 'Original'),

(14, 'Cloud', 'Male', 173, 70, '1997-01-31', 'cloud@hotmail.com', 'buster', '+60111223344', 'Original'),

(15, 'PrincessPeach', 'Female', 165, 60, '1985-09-13', 'peach@live.com', 'mushroomkingdom', '+60192384756', 'Original'),

(16, 'Squall', 'Male', 175, 70, '1999-02-11', 'squall@outlook.com', 'lionheart', '+60176543210', 'Original'),

(17, 'Aloy', 'Female', 170, 60, '2017-02-28', 'aloy@gmail.com', 'horizon', '+60121234567', 'Original'),

(18, 'Ezio', 'Male', 180, 75, '2007-11-17', 'ezio@yahoo.com', 'assassino', '+60134567890', 'Original'),

(19, 'Bayonetta', 'Female', 180, 70, '2009-10-29', 'bayonetta@outlook.com', 'umbra', '+60178901234', 'Original'),

(20, 'Doomguy', 'Male', 190, 95, '1993-12-10', 'doomguy@gmail.com', 'ripandtear', '+60109876543', 'Original'),

(21, 'Bowser', 'Male', 200, 500, '1985-09-13', 'bowser@gmail.com', 'koopaking', '+60121234567', 'BrandX'),

(22, 'Chell', 'Female', 170, 60, '1985-02-14', 'chell@gmail.com', 'portalgun', '+60132345678', 'BrandX'),

(23, 'Dovahkiin', 'Male', 180, 80, '1986-08-06', 'dovahkiin@gmail.com', 'fusrodah', '+60143456789', 'BrandX'),

(24, 'EzioAuditore', 'Male', 180, 75, '2007-11-17', 'ezio.auditore@gmail.com', 'assassino', '+60154567890', 'BrandX'),

(25, 'IsaacClarke', 'Male', 185, 85, '1984-03-22', 'isaac@gmail.com', 'deadsp4ce', '+60165678901', 'BrandX'),

(26, 'JillValentine', 'Female', 170, 60, '1979-06-28', 'jill@rpd.com', 'stars', '+60176789012', 'BrandX'),

(27, 'Kerrigan', 'Female', 180, 65, '1988-11-03', 'kerrigan@outlook.com', 'queenofblades', '+60187890123', 'BrandX'),

(28, 'MaxCaulfield', 'Female', 165, 55, '1995-09-21', 'max@hotmail.com', 'timepower', '+60198901234', 'BrandX'),

(29, 'NathanDrake', 'Male', 178, 80, '2007-11-19', 'nathan.drake@outlook.com', 'uncharted', '+60101012345', 'BrandX'),

(30, 'PhoenixWright', 'Male', 180, 75, '1976-10-04', 'phoenix@yahoo.com', 'objection', '+60111223456', 'BrandX'),

(31, 'Cortana', 'Female', 170, 55, '2002-10-20', 'cortana@hotmail.com', 'haloAI', '+60135579246', 'PostMerge');

INSERT INTO `watchface` (`WatchfaceID`, `WatchfaceName`, `WatchfaceColour`) VALUES

(1, 'Digital Green', 'Green'),

(2, 'Analog Blue', 'Blue'),

(3, 'Sporty Red', 'Red'),

(4, 'Elegant Gold', 'Gold'),

(5, 'Classic Black', 'Black'),

(6, 'Modern Silver', 'Silver'),

(7, 'Hazy Purple', 'Purple'),

(8, 'Minimalist White', 'White'),

(9, 'Ocean Blue', 'Blue'),

(10, 'Sunset Orange', 'Orange'),

(11, 'Glowing Yellow', 'Yellow'),

(12, 'Pastel Pink', 'Pink'),

(13, 'Midnight Navy', 'Navy'),

(14, 'Forest Green', 'Green'),

(15, 'Desert Sand', 'Sand'),

(16, 'Retro Brown', 'Brown'),

(17, 'Neon Pink', 'Pink'),

(18, 'Chrome Grey', 'Grey'),

(19, 'Sky Blue', 'Blue'),

(20, 'Sunshine Yellow', 'Yellow');

**Screenshots of analytical questions and front-end:**

