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Final Spark Page:
https://spark.adobe.com/page/x95SB8lvmjwHH/

About the Project

The purpose of the Time Tracker app is to collect and analyze data on how ones time is spent throughout the Project & Portfolio II class. This will help students in the future when they enter the industry by providing early insights on their work patterns and time management skills.

Issues:

The Time Tracker already had a general layout for students to follow, so there weren't very many hiccups throughout the month. There were a few parts in creating the menu functionality where some blocks of code might take a couple hours to get just right, and there were some points where debugging with breakpoints and repetitive test runs were required, but overall coding the app went pretty

smoothly. There weren't any issues big enough to look back and remark upon.

Research & Development

Issues:

Whenever there was a seemingly unsolvable error, time would be spent researching the error number, error message, exception message, or other form of feedback from the program. One of the most bothersome problems throughout the month was being unable to upload files larger than 100 MB to GitHub. The solution, which was found after some researching, was to install GitHub LFS (large file tracking system) to the computer and install it within the master branch of the local GitHub repository. In order for this to work, the user would have to tell Git LFS which files or file extensions to track. Another part of this problem was that the file needed to be removed from Git history and then added back once tracking for the necessary file extension had been enabled.

Time Management Research:

Over the course of the degree so far, a fair bit of time has been spent researching time management practices. Several time management practices include the pomodoro technique, 30 minutes of one activity, change to a different one for 30 minutes and repeat, and getting up and moving around every 30-45 minutes. A few tips for good time management are turning off notifications on ones computer and devices, turning any nearby devices to do not disturb, keeping ones space clean and uncluttered, and setting small easily attainable goals for each "sprint" of work.

Section References: (Cirillo, n.d.)

Remote Work Research:

One of the things researched this month was remote work. Remote work has many benefits including being able to work anywhere, more flexible schedules, increased work satisfaction and decreased stress, and saving time and money on commuting, eating out, and other things. However, remote workers do need to possess certain skills such as good time management, communication, independent problem solving, and self-motivation.

Section References: (Birnir, 2015; Cote, 2019; Kleemeier, 2017; Remote Year, 2019; Shewan, 2017)
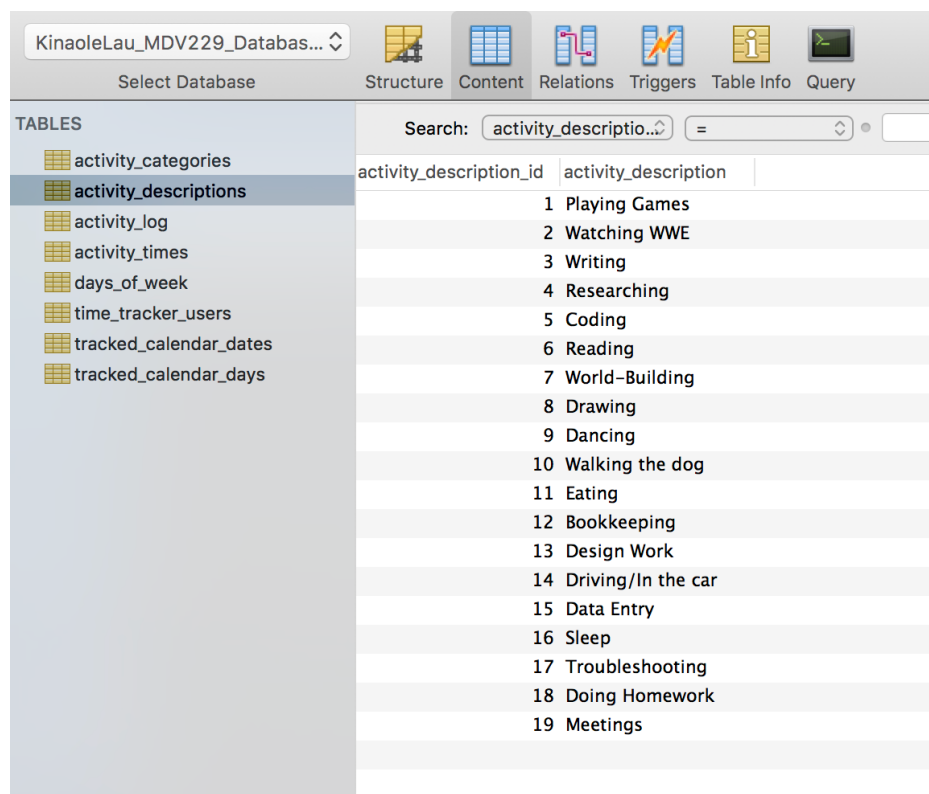
Charging & Evaluating Time:

When charging for ones time some important things to consider are: what value this task/product will give the customer (monetary, time, less stress, etc), how much the creator needs to make to support them self, how much the creator would like to make, and the cost of the time spent on the creators behalf (extra stress, unpleasant client, etc). One important thing to keep in mind however, is that charging more for a service that customers value is NOT a bad thing. In fact, customers tend to place higher value on things that cost more, so charging more for a product with high value can further increase that products value in the eyes of the consumer.

A good way to evaluate ones time is to record the time spent on something while working on it, so as not to wrongly estimate the time spent, and record in detail what was worked on and completed during that time. Recording time spent communicating with clients might be included in the time one charges for based on the amount of time spent and the difficulty of working with that client.

Section References: (Costill, 2016; Kagan, 2017; Mitchell, 2017)

The Data

The data for the time tracker app is broken down into several categories. On the largest scale, data is separated into user data and activity data. User data contains information on the user such as the users name. Activity data includes all the other data in the

database. dates and times, and categories and activities.

The categories set the tone of the activities rather than limiting the user to certain activities because many activities can be done under several different categories. For example, reading could be done under Project & Portfolio II, relaxing, work, or other. The category gives a little context to the activity while the activity gives a bit of description to the category.

KinaoleLau_MDV229_Databas...	Structure	Content	Relations	Triggers	Table Info	Query

Select Database

TABLES

- activity_categories
- activity_descriptions
- activity_log
- activity_times
- days_of_week
- time_tracker_users
- tracked_calendar_dates
- tracked_calendar_days

Search: calendar_date_id =

calendar_date_id	calendar_date
1	2019-05-06
2	2019-05-07
3	2019-05-08
4	2019-05-09
5	2019-05-10
6	2019-05-11
7	2019-05-12
8	2019-05-13
9	2019-05-14
10	2019-05-15
11	2019-05-16
12	2019-05-17
13	2019-05-18
14	2019-05-19
15	2019-05-20
16	2019-05-21
17	2019-05-22
18	2019-05-23
19	2019-05-24
20	2019-05-25
21	2019-05-26
22	2019-05-27
23	2019-05-28
24	2019-05-29
25	2019-05-30
26	2019-05-31

The Database

activity_times	
🔑 activity_time_id INT	
◇ time_spent_on_actvitiy DOUBLE	
Indexes	▶

days_of_week	
🔑 day_id INT	
◇ day_name VARCHAR(10)	
Indexes	▶

activity_descriptions	
🔑 activity_description_id INT	
◇ activity_description VARCHAR(25)	
Indexes	▶

activity_log	
🔑 id INT	
◇ user_id INT	
◇ calendar_day INT	
◇ calendar_date INT	
◇ day_name INT	
◇ category_description INT	
◇ activity_description INT	
◇ time_spent_on_activity INT	
Indexes	▶

tracked_calendar_dates	
🔑 calendar_date_id INT	
◇ calendar_date DATE	
Indexes	▶

activity_categories	
🔑 activity_category_id INT	
◇ category_description VARCHAR(25)	
Indexes	▶

time_tracker_users	
🔑 user_id INT	
◇ user_password VARCHAR(10)	
◇ user_firstname VARCHAR(25)	
◇ user_lastname VARCHAR(25)	
Indexes	▶

| tracked_calendar_days	
🔑 calendar_day_id INT	
◇ calendar_numerical_day INT	
Indexes	▶

(Lau, 2019)

In the database itself, there is a users table, times table, descriptions table, week days table, dates table, categories table, days table, and an activity log table. The users table contains the users first and last name and password. The categories table contains the various categories and the descriptions table contains the various activities which would fall under the categories. The times table contains the hours which could have been spent working on it, the 24 hours in a day split into 15 minutes increments. The weeks days table contains the days of the week, the dates table contains the dates of the class from the

first to the last class day, and the days table contains the number of days in the class from 1 to 26. Lastly, the activity log table contains foreign keys to all of the other tables allowing users to make and save activity entries with all of the necessary information.

Future Time Management

Moving forward, I plan on using my increased knowledge of time management practices by setting more specific goals which can be reached within an hour or less, getting up and or doing something very different from the current task every time a mini goal is achieved or an adequate amount of time has passed that my brain needs a break, and setting time limits on "sprints" so as not to burn out or waste time being inefficient. This will help me increase my efficiency, decrease stress and frustration (sometimes taking a break is all you need to solve a problem), and increase my focus.

The App
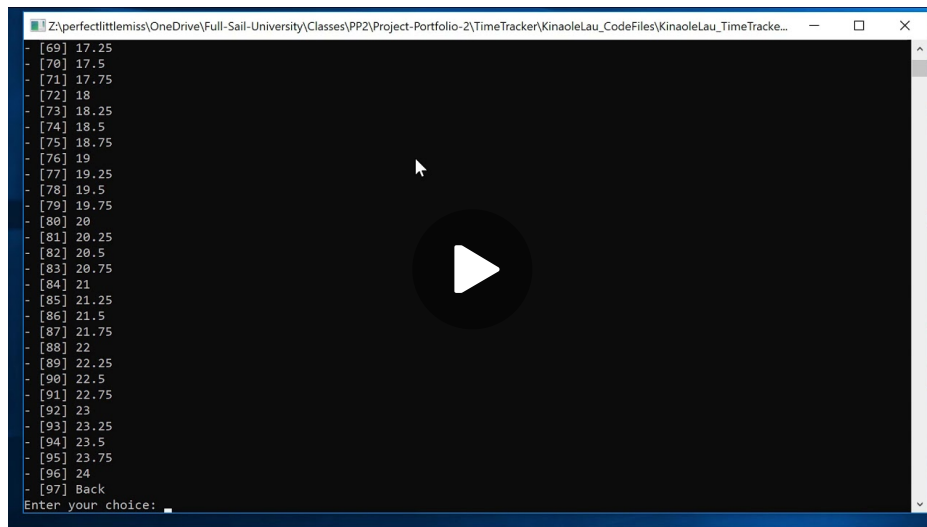
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