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2e: Task Review

Task 1: Perceiving the sound levels of a loud environment

Timmy works in a family restaurant and has been for a few months. He's noticed that
sound levels increase as the amount of clientele increases especially with large families
and children. After a busy night, he sometimes feels ringing in his ears and has trouble
falling asleep at the night. He wonders about the implications of this and whether working
in such an environment will affect his future health. He has several friends in the
construction industry and knows they are required to use ear protection at their work
sites. However, he also knows that he has to be ready to listen to orders from customers
and maintain communication with his coworkers.

Task 2: Measure dB levels of a given environment

Timmy wants a way to measure dB levels of a given space so he has some context to
what is considered dangerous levels of sound exposure. He uses a sound meter and
calibrates the device to get an accurate reading of a given space. He decides to test a
quiet environment such as a library as a point of reference. He then goes into a moderate
sound level space like a grocery store. Finally, he goes to a louder environment like a
local concert to capture the highest peak of sound exposure that he experiences on a day
to day basis. With the data from his collections, he compares his findings with dB level
charts to see what other kind of real-life objects and situations can also affect his hearing
with long exposure.

Task 3: Setting a personal aural profile as well as tracking and visual representation

Timmy wants to find a way to use his sound meter to actively record sound environments
throughout the day. He has a family history of hearing loss and can affect how and when
hearing loss will occur. He records and logs dB levels of his activities during the day and
plots the data on a two-dimensional graph showing dB levels with respect to time. He
notices there are times where dB levels were abnormally high and takes notes on that.
He repeats this process for a few days and compares and analyzes this set of
information.

Task 4: Limiting controllable sources of sound

After a few weeks of recording and logging his data, Timmy has a new appreciation for
being conscious about his ear health. When he takes public transportation, he listens to
music but lowers the volume of his music when he steps into the bus. However, he
forgets sometimes and is occasionally greeted with a loud burst of noise, which makes

him uncomfortable. He uses the data he collected to cross reference points in time that he is exposed to loud sounds and sets alarms for himself when those times occur.

Task 5: Understanding long term effects of high dB exposure

With his efforts in trying to reduce the amount of exposure to high dB levels, Timmy does some research on the long-term impacts of his current exposure patterns. He finds that even at relatively low dB levels hearing damage can occur. He also discovers websites that simulate different stages of hearing loss and is moved by the effects it can have on daily life. This new information further motivates his efforts in maintaining a safe threshold of sound exposure despite his surroundings and constraints from work or otherwise.

Task 6: Sharing personal sound data

After a couple months of recording sound levels, he wants to show his friends and family about his findings as well as bring awareness to this seemingly innocent phenomenon. Timmy makes a map of the areas that he visits daily and also notates the average dB of a given space. He uses the geotagging feature of his phone to create the most accurate map possible. He then uploads his findings and his personal data to a sound level database that also maps and visualizes sound levels in a given area. This database is connected to many of the popular social media outlets so that information from the sound database can be shared across users across these platforms and ultimately across the world. This information provides users with sound information about a given space and can provide insight for users and therefore help them make decisions based on that information.