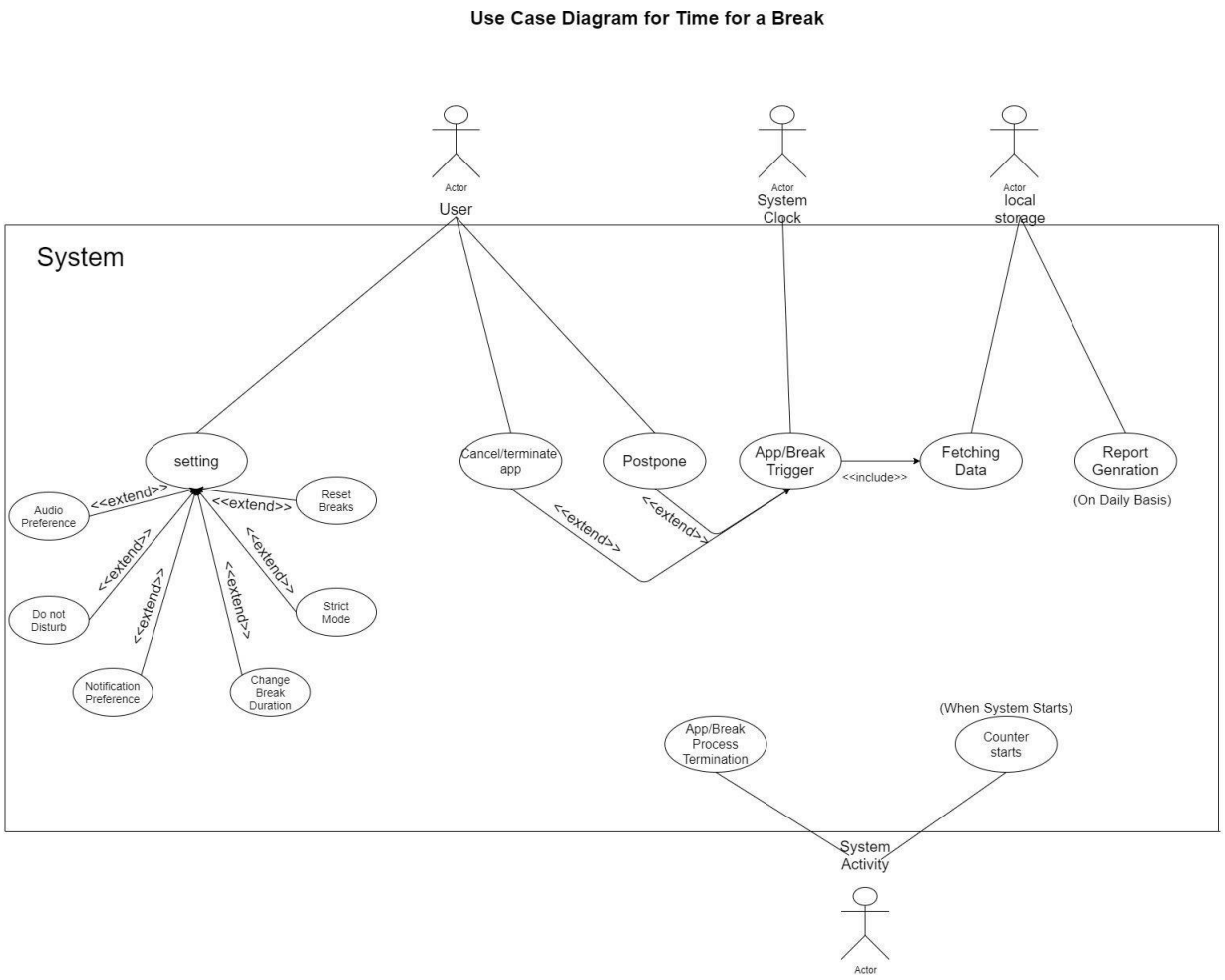
Time for a Break - Use Case Model

The model we deem fit for our project is the iterative waterfall model because the problem statement and customer requirements are fairly simple and clear. Thus, the waterfall model is best match but, the classical waterfall wouldn't comply with our project as we need some sort of feedback at every stage. Thus, iterative waterfall model is much more appropriate.

Implementation

1. Using the proper elicitation techniques, idea about requirements is obtained and is reviewed by the team and appropriate and feasible changes will be made.
2. A structure for the application will be developed and then using the feedback loop will be modified if required.
3. Coding and testing will be done in a staged manner and changes will be made accordingly.
4. The almost ready application will be maintained based upon the system testing and integration results.

Use-Case Diagram



Use Case Description

Use Case Name	**settings**
Description	By going through this use case(Activity), System users can change settings in the app for their system. It consists of Audio Preference, Notification preference, Do Not Disturb, Change break duration, Reset breaks, Strict Mode etc.
Precondition	There is no restriction(Condition) unless the user can’t access the Settings Page.
PostCondition	If the user has not changed anything then the previous settings should be kept intact else the new ones should be applied and saved in the local storage.

Basic Flow (System Happiness)	The user starts the app during the time other than the break time(Trigger period specified by user) and opens the settings and then he/she may i) alter some Audio settings(change or remove the current music) ii) adjust app notifications iii) set the Do not Disturb mode in app for some specified period iv) control breaks and its properties through 'Change break duration' and 'Reset breaks' v) set the strict mode in app at and during some certain time period. vi) keep the default settings as it is.
Alternative Flow	=> Users can add Music/Video files from the system to the local storage and use it. => Added files should be in correct format.

Use Case Name	**App/Break Trigger**
Description	App would trigger at the specified period with the specified action and would remain active for some certain time period given by the user. The App can also be postponed or terminated by the user before its terminating time.
Precondition	The time at which the app should trigger, the time period range during which the app should be active and the action to be carried out; these quantities should be specified by the user and also during the specified active time, system should be on.
PostCondition	After the completion of the break event, all information and user activity(User activeness, postponement, forced termination etc) during that time should be saved in the database and should be added in the report being generated.
Basic Flow (System Happiness)	At the certain exact time(given by the user), the app triggers and implements some certain actions(Audio, video, notifications etc, it would fetch these data from the local database) for some certain time period(given by the user). Now in some cases, when some break is active and rendering some actions, the user can postpone or terminate it too.

Alternative Flow	=> If the user hasn't given the data for the actions to be implemented during some break time, then the app will render the default actions. => If the system turns off while the break time is on then the break should terminate and store the information in local storage and report.

Use Case Name	**Counter**
Description	The counter will count and consider the time since the system start time till its termination time and also it should avoid sleep modes.
Precondition	No restrictions
PostCondition	No restrictions
Basic Flow (System Happiness)	Same as the description and is used in Report Generation.
Alternative Flow	---

Use Case Name	**Report generation**
Description	At some specified time of the day, a daily report would be revealed containing all the information about user activities during different time breaks.
Precondition	System should be on at report trigger time, else it will be stored in the database and will be shown to the user as a notification(can render the entire report on click) when the system starts.
PostCondition	Current daily report information should be kept in the local database in order to generate a monthly report and then it should be wiped out.
Basic Flow (System Happiness)	All the user activities and information during break periods should be appended in the current daily report. Then at a certain specified time in the day(set by the user), this report should be rendered on screen with all the useful information regarding daily routine and after getting closed this

	information should be added in the database at some section so that it could be used to generate the monthly report.
Alternative Flow	If for some day, the user has not set any break, then the report should convey some default data.

Concept Map