

# VIBE: A Web-Based Music Player to Cut Off Distractions

Rahul Bakshi<sup>1</sup>, Shivam Kumar<sup>2</sup>, S. Ponmaniraj<sup>3</sup>, Utkarsh Upadhyay<sup>4</sup>  
<sup>1,2,3,4</sup>*Computer Science and Engineering, Galgotias University*

**Abstract** - This project Vibe is a web-based music application which helps the user to cut off the distractions from the surroundings and focus on the work. Most people can only concentrate for 20 minutes before needing a break. This is due to the distractions like noise, smell, vision, social media etc which eventually leads into unproductive work sessions. Studies shows that the effect of static sound, including artificial ambient sound, has the effect of "...enhancing cognitive functioning, optimizing the ability to concentrate, and increasing overall worker satisfaction." This web application plays stream of Lo-Fi (low fidelity) sounds and beats that cut off external noise and distraction in turn helping users to focus, concentrate or relax.

The web application has two major categories namely the study zone and relaxing zone. The user can toggle between these two sections accordingly. The study zone consists of music stream which helps the user to concentrate and focus while the relaxing zone plays slow and soft music stream to let the user relax and sleep. This web application provides the user with a peaceful, soothing and distraction free environment which enhances user's efficiency, focus and productivity.

**Index Terms** - Web Dev, Music Player, Responsive, Lo-Fi music, Firebase, Focus, Relax.

## I. INTRODUCTION

A vast majority of people enjoy working with some sort of music on. But the thing with music it can influence you working at another level with a wide variety of music available out there it becomes a tiresome job to first select a playlist of music that help one with the productivity and the same process people end up being more distracted. Our objective behind this project is to provide a concentration zone with minimal distractions, in order for users to concentrate and complete their task and to create a stress-free environment for the user to relax with just a click on a button. So, we end up making a web-based music player "Vibe" having pre curated dedicated playlist of

Lo-fi (low-fidelity) songs with no vocals with a chill beat to help the user cut off the distraction without going through any hassle finding suitable music arranging the music and getting to work and end up being more distracted. Our web app also provides with a stress-free environment to calm or relax themselves in between after the work sessions. Therefore, we create two dedicated zones (Focus Zone & Relax) for the same purpose of aiding the user with both environment on single platform.

### A. Problem formulation

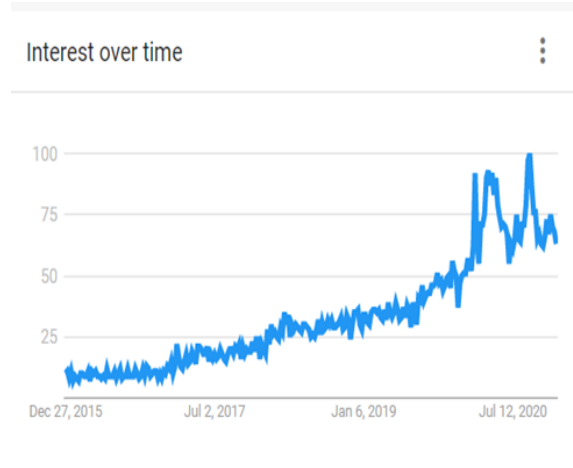
The problem that our web-app counters is a problem that probably you and one out of every 7 people in this world face, i.e., lack of concentration or lack of focus. This drastically drops the efficiency of that person. Sometimes it's the situation that person is in, makes it hard for him to focus at the task in hand, for example you are at a noisy place or at some public area where you need to do your work without distraction.

There is another issue that is commonly faced by many, sleep disorders i.e., finding it hard to sleep at night. Studies proved that a good quality of sleep is a necessity for everyone and that too of at least 6-7 hours' sleep. Lack of sleep causes a lot of health issues and decreases overall productivity of that individual.

### B. Comparative study

On conducting a comparative study for the project, it was found there are a lot of music apps like Soundcloud, Spotify etc. currently in the market with a whole lot of variety in the music they host. So, when a user browses music in these app with a lot of variety and diversity in the content ranging from pop music, hip hop, Bollywood etc. which tend to create a distraction if one listens to music while working when all this put in together in a same. So, our web application was developed to give the users a dedicated platform keeping mind the same thing and reducing the distraction the other platform right now

has. So having a dedicated platform of such music that could aid a user in their productivity and prevents the problem of distraction from other kind of music.



Results from Google Trends for term Lofi in last 5 years worldwide Fig 1

The result above in Fig.1 is the graph depicting the rise of searches for the term Lofi in the span of last five years (2015-2020). We can clearly see there has been huge rise in the searches for the Lofi in this time span showing how lo-fi music is being searched for by the users worldwide. The source of this result id Google Trends.

Related queries	Rising
1 study lofi	Breakout
2 chill	Breakout
3 chill lofi	Breakout
4 lofi hip hop radio	Breakout
5 lofi study beats	Breakout

Related Queries from web searches made for Lofi Fig. 2

Above results are from Google Trends showing the related queries searched with the term lofi. As the result show people tend to associate with term study with Lofi meaning people like to listen lofi music while working or studying to help them focus better at their work.

## II.LITERARY SURVEY

In this section we review various resources used in the research process of this project. Let’s begin with

understanding the reference of Lo-fi as given by Justin Wang, as of late, the subgenre known as “lo-fi chill beats,” referred to simply as “lo-fi” among its online community, has been trending online, especially on YouTube and SoundCloud.[2].

According to Winkin Lukes (2018), the most popular and well-known source containing a playlist of nothing, but lo-fi songs would be the YouTube channel Chilled Cow which hosts a live stream video that has been going on since the 18th of March 2018, entitled —lo-fi hip hop radio - beats to relax/study to.[4]. We also analysed some articles from famous publishing like VICE, Inc and Washington Post. [7]. Jessica Stillman in her article for Inc explains how in these pandemic times Lo-Fi is booming up as its helping people with their new normal of work from home. [5]

According to Emma Winston, “Lo-fi hip hop is a musical genre which is distributed and mediated entirely via the internet, and which, to our knowledge, is currently unexamined academically. We briefly define lo-fi hip-hop stylistically and aesthetically, before exploring its contradictory relationship with nostalgia. The genre’s mediation and reception in terms of its participants’ relationship with the material conditions of late capitalism. We conclude that lo-fi hip hop is characterized by a series of complex paradoxes navigated effortlessly by its listeners, highlighting a shift in everyday reality amongst a generation of young people for whom the social internet is simply an ordinary part of life.” [8]

According to Adam Harper, “During the late twentieth and early twenty-first centuries, 'lo-fi,' a term suggesting poor sound quality, the opposite of 'hi-fi,' became a characteristic perceived in certain popular-music recordings and eventually emerged as a category within independent or 'indie' popular music. It is typically taken to express the technical and technological deficiencies associated with amateur or 'DIY' musical production, namely at home using cheap recording equipment. However, this thesis rejects the assumption that lo-fi equates to a mode of production and charts it as a construction and a certain aesthetics within popular music discourse, defined as 'a positive appreciation of what are perceived and/or considered normatively interpreted as imperfections in a recording.' I chart the development and manifestation of lo-fi aesthetics, and the ways it focuses on various 'lo-fi effects' such as noise, distortion ('phonographic

imperfections') and performance imperfections, in several decades of newspapers, magazines and websites covering popular music in the English-speaking world.

I argue that lo-fi aesthetics is not merely the unmediated, realist authenticity that it is often claimed to be, but one that is also fascinated with the distance from perceived commercial norms of technique and technology (or 'technocracy') that lo-fi effects signify. Lo-fi aesthetics derives from aesthetics of primitivism and realism that extend back long before phonographic imperfections were positively received.” [1]

According to Nawaz Ahmad & Afsheen Rana, “Music has the power to influence mood in both ways positively as well as negatively. Antisocial lyrics and annoying music can cause negative effect on mood whereas uplifting music and pro-social lyrics can bring positive effects in mood.” [9]

According to the studies of Hill (2007), “the listener enjoys listening to soft rock because they feel happier, less angry, sad, disgusted, etc. Likewise, the listener does not like listening to hard rock because they feel angrier, sadder, and disgusted. The negative hard rock music was positively correlated with negative emotions and the soft rock music was positively correlated with positive emotions.” [10]

### III.REQUIREMENTS AND FEASIBILITY

#### A. Specifications Required

Usually, the most player out there require you to download a dedicated music player mobile application or a desktop application to access the services. This project does not require anything too extreme. It was built such that its easily accessible to everyone. The users just need to enter the URL in the web browser of choice that is it the player is right Infront and ready to be streamed by the user.

Following the specified requirements for accessing the web

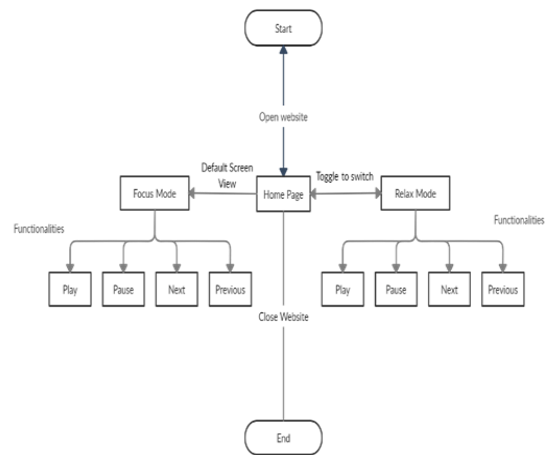
- Basic Computer or Mobile device
- Internet access
- A Browser that can run HTML 5 and ES6

#### B. Feasibility Analysis

On running feasibility analysis, the project was found to be technically feasible for the users as this application is a web-based application which means its platform independent and can be easily accessed using

any operating system as windows, MacOS, Linux, Chrome OS and this application is also built with responsive design so it would be easily accessible using operating system such Android, IOS using just a web browser such Google Chrome, Mozilla Firefox, Safari, Opera etc. So, it would be fairly easy for the users to access the this without the limitation of any technology or device.

### IV.SYSTEM ARCHITECTURE



System Architecture for the Web App Fig.3

### V.SYSTEM FEATURES

#### A. Modernistic UI Approach:

The project follows a modernistic UI design approach to follow the latest design trends out there. The UI of the player uses the trends of the box shadows to provide a modernistic and minimal design approach. The background of each zones has a background videos playing on loops which goes well with the theme of the project.

#### B. Cloud Storage:

All the data files are hosted on the Google Firebase Cloud Storage. The data is stored in a Google Cloud Storage bucket, an exabyte scale object storage solution with high availability and global redundancy. Cloud Storage lets us securely upload these files directly from mobile devices and web browsers, handling spotty networks with ease.

### VI. IMPLEMENTATION & DEPLOYMENT

### A. Modules

This app will have a very minimalistic design with very limited number of things the user can do. This is because we want to minimize the number of distractions and want the user to have full focus on the work he wants to complete.

There are 2 different modes that this site can work for:

#### 1. FOCUS mode

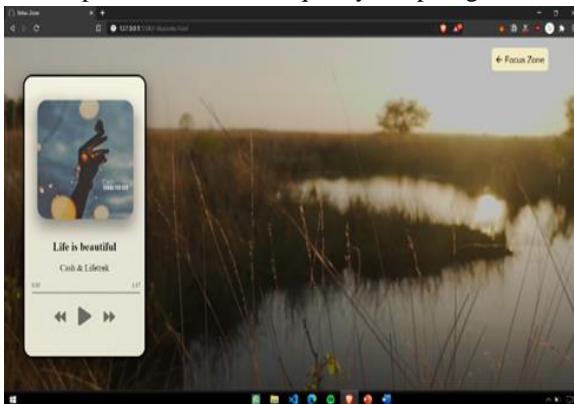
As you enter the site you will be in 'FOCUS mode' by default and with just a click of a button the Lo-Fi music will start that will no vocals in them so that your mind does not start focusing on vocals. This cuts off all the background noises around the user and a steady stream of lo fi music is played will helps in maintain focus. Fig. 4



Screenshot from Focus Zone Fig. 4

#### 2. RELAX mode

There will be an option at the top to switch to 'Relax mode' if user clicks that then he will be taken to that mode and again with a click of a button he can play the Lo-Fi Chill beats and ambient sounds to relax his mind and help him have a better-quality sleep. Fig. 5



Screenshot from Focus Zone Fig. 5

### B. Deployment:

The project is deployed on Netlify. Netlify is an all-in-one platform for automating modern web projects. Replace the project's hosting infrastructure, continuous integration, and deployment pipeline with a single workflow. Integrate dynamic functionality like serverless functions, user authentication, and form handling as the scope of project grow with time.

## VII. CONCLUSION

To conclude this, we would say our project is simple effective way to help the users with their work and stress with simple means of a Lo-Fi music stream without any hassle of installing any app, setting up a playlist to have along the work. Our project I some short solution for the concentration, focus aiding music as well as music to help user calm and relax after the tiresome work session which could be accessed with simple webapp.

## VIII. LIMITATIONS AND FUTURE SCOPE

This a vast project thus more resources could be added to this project on the way in future. The project can be made more responsive for the mobile users. There can be various UI changes based on current trends to make this application more user friendly and easy to navigate using various other technologies available (such as React). Thus, various improvement can be worked on and provided to users through version update.

## ACKNOWLEDGEMENT

It gives immense pleasure in bringing out this synopsis of the project entitled "VIBE". Firstly, we would like to thank our teacher and guide Mr. S. PONMANIRAJ who gave us his valuable suggestions and ideas when we were in need of them. He encouraged us to work on this project.

We are also grateful to our college for giving us the opportunity to work with him and providing us the necessary resources for the project

We would also thank to all of them who helped us to complete this project.

We are immensely grateful to all involved in this project as without their inspiration and valuable

suggestion it would not have been possible to develop the project within the prescribed time.

#### REFERENCES

- [1] Harper, A. C. “Lo-Fi Aesthetics in Popular Music Discourse” Oxford University, UK, 2014.
- [2] Justin Wang, “Lo-fi Hip-hop Radio: Beats to study/relax to”, The Word: The Stanford Journal of HipHop Research
- [3] Kyle Jeshua S. Casumbal, Chloe Kaye T. Chan, Francesca Isabelle V. de Guzman, Nina Veronica G. Fernandez, Anneliese Victoria N. Ng, and Matthew C. So, “The Effects of Low-Fidelity Music and Font Style on Recall” Ateneo de Manila University
- [4] Winkie, Luke. “How 'Lo-fi Hip Hop Radio to Relax/Study to' Became a YouTube Phenomenon.” VICE, VICE Media Group, 13 July 2018, [www.VICE.com/en\\_us/article/594b3z/how-lofi-hip-hop-radio-to-relaxstudy-to-became-a-youtube-phenomenon](http://www.VICE.com/en_us/article/594b3z/how-lofi-hip-hop-radio-to-relaxstudy-to-became-a-youtube-phenomenon).
- [5] Jessica Stillman, “Lo-fi is booming in pandemic Science explains why”, July 8, 2020 <https://www.inc.com/jessica-stillman/lo-fi-music-is-booming-during-pandemic-science-explains-why.html#:~:text=It's%20neither%20so%20boring%20you,helps%20create%20this%20relaxing%20effect>
- [6] Brendon Lutes, “Lo Fi Music: A Secret to Focusing During Study Sessions”, Hyde School [https://www.hyde.edu/blog/hyde\\_school\\_blog/lo-fi-music-a-secret-to-focusing-during-study-sessions/#:~:text=Lo%20Fi%20music%20is%20used,study%2C%20workout%2C%20and%20focus.&text=By%20listening%20to%20Lo%20Fi,into%20a%20mindset%20of%20focus](https://www.hyde.edu/blog/hyde_school_blog/lo-fi-music-a-secret-to-focusing-during-study-sessions/#:~:text=Lo%20Fi%20music%20is%20used,study%2C%20workout%2C%20and%20focus.&text=By%20listening%20to%20Lo%20Fi,into%20a%20mindset%20of%20focus).
- [7] Steven Johnson, “How lo-fi artists make music perfect for work. (Or studying. Or chilling.)” - Washington Post, Feb 19,2020 [https://www.washingtonpost.com/lifestyle/wellness/how-lo-fi-artists-make-music-perfect-for-work-or-studying-or-chilling/2020/02/18/c88bf92e-49e4-11ea-bdbf-1dfb23249293\\_story.html](https://www.washingtonpost.com/lifestyle/wellness/how-lo-fi-artists-make-music-perfect-for-work-or-studying-or-chilling/2020/02/18/c88bf92e-49e4-11ea-bdbf-1dfb23249293_story.html)
- [8] Emma Winston and Lawrence Saywood, “Beats to Relax/Study To: Contradiction and Paradox in Lo-Fi Hip Hop”, Goldsmiths, University of London [https://www.researchgate.net/profile/Emma\\_Winston/publication/338135849\\_Beats\\_to\\_RelaxStudy\\_To\\_Contradiction\\_and\\_Paradox\\_in\\_Lo-Fi\\_Hip\\_Hop/links/5f75c95b92851c14bca455ab/Beats-to-Relax-Study-To-Contradiction-and-Paradox-in-Lo-Fi-Hip-Hop.pdf](https://www.researchgate.net/profile/Emma_Winston/publication/338135849_Beats_to_RelaxStudy_To_Contradiction_and_Paradox_in_Lo-Fi_Hip_Hop/links/5f75c95b92851c14bca455ab/Beats-to-Relax-Study-To-Contradiction-and-Paradox-in-Lo-Fi-Hip-Hop.pdf)
- [9] Nawaz Ahmad & Afsheen Rana, “Impact of Music on Mood: Empirical Investigation” Visiting Professor at Iqra University, Karachi, 2015 [https://www.researchgate.net/publication/285055978\\_Impact\\_of\\_Music\\_on\\_Mood\\_Empirical\\_Investigation](https://www.researchgate.net/publication/285055978_Impact_of_Music_on_Mood_Empirical_Investigation)
- [10] Jonathan Hill, “Assessing the Influence of Rock Music on Emotions”, Murray State University
- [11] [http://campus.murraystate.edu/services/ursa/Chrysalis\\_Vol\\_3/Hill.pdf](http://campus.murraystate.edu/services/ursa/Chrysalis_Vol_3/Hill.pdf)