# Sanskritive

## Preserving Cultural Heritage

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*Abstract*—We are aiming to deliver a unified platform for all the keen learners and influencers of the Sanskrit language that aims to learn and empower our cultural language and the most scientifically correct language. Our platform is a one-stop solution for learning the Sanskrit language from the beginner level all the way up to the expert. We are looking forward to creating a community of all the Sanskrit Scholars and enthusiasts looking forward to learning the language.

The main aim is to empower and promote the Sanskrit language all over the world not only to preserve our cultural heritage and text that are majorly written in Sanskrit but also aiming to the technical aspect and possibility that this Language is capable of, Sanskrit being the most technically correct language that is available is the only language available till date that has the capability to be used in the Super Computer. Our Platform known as 'Sanskritive' is the solution that is not only a learning platform but also a community platform where people can interact with other scholars' content and share their knowledge about the Sanskrit language and the community can engage and interact with other members to learn and grow the language as a whole. There are only 0.02% of people in the world can read and write Sanskrit, and our idea aims to solve that particular issue.

## I. INTRODUCTION

India is a land of diverse cultures and these culture holds and this culture holds their history in form of ancient texts and manuscripts that we know as the medium of passing information between generations, this information is the root of all the knowledge and heritage we have in the present time. These are mainly written in the language that is widely used in the ancient time and indeed the majority of the Indian ancient work is found written in the Sanskrit language, according to research Sanskrit is the oldest known language after the Greek language. This makes Sanskrit Text widely available in ancient manuscripts and textbooks. The Sanskrit language is also known to be the most Scientifically precise language it is due to the fact that it can read identically the way it typed and vice versa, it does not consist of any silent keywords or phrases that have to be handled separately it makes

Sanskrit is a language compatible with modern computer Programming languages because the computer needs exact information to get processed, any anomaly can result in the crashing of the entire software. In 2019 Union HRD Minister Ramesh Pokhriyal said, NASA declared Sanskrit as the most suitable language for Computer Programming and declared that in the future if we are able to make a supercomputer Sanskrit is the only known language that will be compatible with running it. Scholars believe that the grammar of Sanskrit is the most appropriate to write algorithms. After having all such features and religious values, there are only 0.01% of People in India know how to read and write in the Sanskrit language, this is a real setback as India is the originating place of the Sanskrit language and almost all of the Scholars of this language is from India.

The interface will provide a community posting system where people can post stuff like photos, videos, articles, and links. To ensure the dignity of the community and to maintain discipline and decorum, all the media that will be posted will be verified by a moderator of the community. Once the moderator has verified the post, it will be uploaded to the community. This will result in community building.

## II. EASE OF USE

In order to preserve our language and to promote the influence of Sanskrit in our new generation, we are aiming to build a platform where we can interact and learn Sanskrit and grow along with it. A Platform where people can learn, form a community and engage with them, and can create an ecosystem to use the full potential of the Sanskrit language. The main aim of Making this is to preserve our cultural and religious heritage as well as keep the future potential in mind. There are a lot of people nowadays who simply ignore learning the Sanskrit language simply because they thought it to be old fashion and even the curriculum is now structured in a way that does not give enough emphasis on the Sanskrit language that's why it is getting away from the mainstream audience, and due to diverse nature of the quality resources
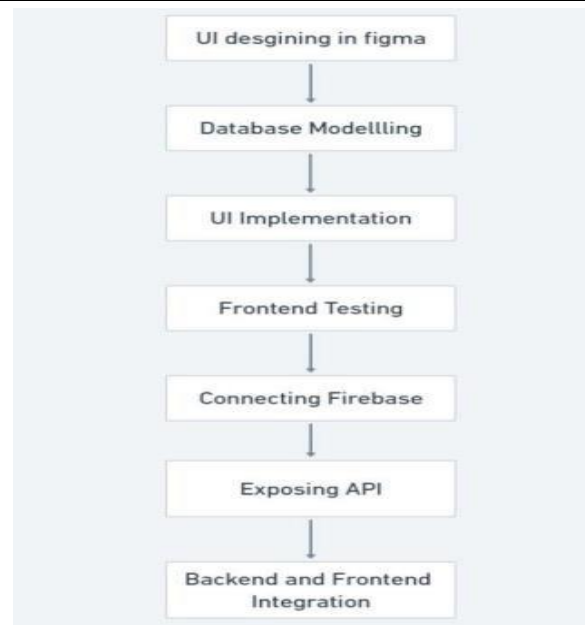
people simply avoid learning it. To ensure that this does not lead to the degradation of the language we are planning to build a Software known as "Sanskrtive", it is a unified platform where people can interact and learn the Sanskrit language at their own pace and can be a part of the Community.

The application is specifically designed to create a simplified Interface for all of the persons where they can interact with each other learn from various tracks available in the Sanskrit Roadmap and get the certificate after completing the procedure. Sanksritive is not only limited to learning Sanskrit, you can form or join a community regarding a deep dive into a specific topic in Sanskrit or any cultural heritage specific. There is an option to interact with other Scholars in the community by directly having a peer-to-peer messaging system. We can create a community post, can like or dislike a particular post add a comment to it. The application is strictly made by following a simple yet intuitive User Interface that fits the need of people from all age groups.

The application focuses equally on the reading and video resources for learning. For this, we have planned to collaborate with the local Sanskrit scholars to get their lessons uploaded in the video resources section. There will be dedicated free resources for learning the language as well as a paid version of the course which is specifically designed for a deep-dive experience in the language. The application will also have a feature to connect with various other scholars and follow them to get regular updates about their posts and uploads. The community post has to be first approved by the Moderators of the community to ensure the platform is clean and for a specific set audience. In this way, people can interact with each other and leverage the advantage of the community in a clean and unified platform
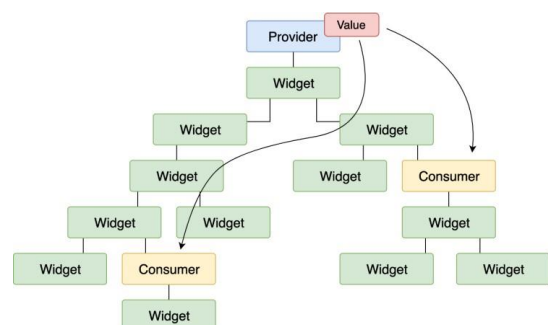
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## A. Tech

We are using flutter as the mobile application for the initial build of the product, the main reason being to provide the application to a larger set of audience and as flutter SDK gives you access to a wider set of platforms including build for the android and IOS as well as the window, mac and Linux and a full fletched web application for the browser.



For the initial Start, we will confine ourselves to the mobile application since a lot of mainstream audiences are available on mobile. The flutter tech stack also allows us to make the application fast and build an animation in it as well. The application will use the provider as the state management tool in the flutter SDK which is installed from the pub.dev. The application is responsive for all mobile sizes and follows the best practices and proper folder structure. The flow of the application is as follows.

## III. WORKFLOW

We are aiming to create a mobile application made with the flutter framework on android as well as IOS architecture. Finally, the integration between the database and UI will be done through the hosted repositories along with proper testing. We will be using a no-SQL database and the main focus is to make it efficient we will use the normalization approach to make the fields in the collection exposed to complex search functionality which may be required in the future for the recommendation system. Instead of using hard-coded value and generalized folder structure we will focus on making the folder in the MVVM architecture where we will have a proper Repositories for the data passing in between the states and events. The Main UI will be created by flutter we will focus to make It responsive and hence will use the MediaQuery API of flutter, this way we will ensure that will make the UI fit every screen, and if we want to migrate to the web application.

We will be using the state management tool Provider, the reason being a provider is easy to use, comes with a lot of pre-built functionality, it's fast and light so that the passing of state can be done in a fast and efficient way. Firebase integration will be done through a proper environment file and the instance will be globally exposed through the repositories to preserve any memory leak. The google sign-in login will open a google window in the application where you can choose between different email addresses that you have already registered on your device. We are focused on test-driven development and an agile workflow, most of the widgets will be tested by the mock unit testing, to ensure their proper functionality. We are looking to integrate the Razorpay payment gateway, for the acceptance of both the Net banking and the UPI services as well as cards. Lastly, we will be using the beta and alpha testing method to find any bugs or error that is exploiting the functionality of the user.

feature will be added to ask the new user the level of skill like Beginner, Intermediate, or Expert. Once the database is developed, the feature of recommendation can also be added. Based on the user's location people nearby will be shown to the user to interact with people nearby. In the future, we can tie up with the Ministry of Culture of the Indian Government for the promotion and preservation of language. Sanskrit also has the potential to establish itself as a fully fletched ed-tech platform where qualified and experienced teachers will teach the students on a subscription basis.

### B. Rationale

Sanskrit is said to be the mother of several languages, so it is our responsibility to save our language. This app focuses on the cause where people from all across the country can learn the language. Today's generation is highly influenced by Western culture and lifestyle, and therefore forgetting their roots. We here at Sanskritive aim to preserve our historic language.

### A. Extending our Idea

This application can be further extended in the future by joining people all over the country. In the upcoming times,we are focused on making a community of like-minded scholars and enthusiasts of the Sanskrit language, a platform where people can interact talk, and spread their creations in Sanskrit. Also, certification courses will be provided to the users to learn and develop their skills. During the login page, the

### REFERENCES

[1] Wikipedia resources on Sanskrit
[2] Sanksrit resources on the official nic website
[3] Blogs on Quora
[4] Open Pathsala Sanksirt Classes and Scholars autobiography
[5] flutter docs for the architecture overview and the provider library
[6] Learning resources and concepts from the Sanskrit learning org
[7] Code samples and UI kit from Github