

WINGS (UMEEDON KO PANKH) - Android Based Mobile Application

Gaurav Singh*, Kajal Garg, Medha Gupta, Priyansh Gupta, Soumi Ghosh

Department of Computer Science and Engineering, IMS Engineering College, Ghaziabad, Uttar Pradesh, India

Abstract -Bringing about an adjustment in the public arena and inspiring individuals is an honorable idea. Simultaneously, achieving this change isn't simple. There are numerous associations with such respectable aims, however they come up short on the assets to extend these causes to society. This prompted an absence of mindfulness among society with respect to such causes, making the hole among individuals and such associations. This paper examines WINGS (umeedon ko pankh) - an application that plans to bring the volunteers and underprivileged students together. Wings (Umeedon Ko Pankh) will be able to provide education to underprivileged students, conduct events, add more volunteers, and the donors will be able to make donations through this common platform. The main focus of Wings (Umeedon Ko Pankh) on the underprivileged segment of society and work for the upliftment of society. Providing education to the underprivileged kids is their main focus and also providing a platform to nurture their talent by conducting various social events.

Key Words:Society, WINGS, Organization, Underprivileged, Education, Volunteers.

I. INTRODUCTION

India is a nation of tremendous logical inconsistencies. On one hand, India has the quickest pace of the developing populace and then again, an enormous level of the populace is scarcely ready to manage the cost of two dinners per day. A little segment of the populace approaches the best administrations, while the larger part approach benefits that can scarcely be named crude. Non-administrative associations (NGOs) attempted to overcome any issues however it isn't generally conceivable to locate the best possible stage required to finish the reason. It's conceivable to make a kinder society where better-favored people partake in elevating individuals coming up short on the way to roll out an improvement.

The main focus of Wings (Umeedon Ko Pankh) is on the underprivileged segments of society and work for the upliftment of society. By providing education to the underprivileged kids and also provide a platform to nurture their talent by conducting various social events. They look for all the development of kids connecting them to the mainstream of our society. The founder of the Wings is Mr. Siddharth Wadhvani, an ambitious, compassionate, diligent, and rational personality.

II. EXISTING SYSTEM

A. Pratham Connected

Pratham Connected [6] is an android application for Pratham Education Foundation. The objective is to take a shot at a scale to improve the fundamental proficiency and numeracy abilities of kids; make ease, replicable program models that can affect strategy and practice at the Central and state government levels; bring issues to light about the significance of kids' learning results among all partners in instruction, and give professional and aptitudes preparing prompting openings for work for youth from socio-monetarily impeded foundations.

B. LabOn a Tab

Lab On a Tab [5] is an android application for Agastya International Foundation. The main objective is to give experiential science instructing figuring out how to 20 million kids and 1 million instructors by 2020; make a framework of 1 million Young Instructor Leaders (understudy educators) and become an innovator in instructor preparing for technical studies.

C. bba.org

BBA's primary goal is to make a kid benevolent society where all kids are liberated from misuse and get free quality training [2]. It distinguishes, frees, rehabilitates, and teaches youngsters through direct intercession, network investment, alliance building, purchaser activity, and by advancing moral industry rehearses.

D. Centralsquarefoundation.org

Central square Foundation [3] goal is that all kids in India, paying little heed to their social and financial status, will get top notch school training that sets them up to become capable and profitable residents. We would like to achieve this goal by administering awards to help beginning period associations through capital and limit building; building up an exploration biological system concentrated on contriving communitarian stages for information building and sharing and drawing in with the Central and state governments to reinforce approach detailing and usage.

E. Deepalaya.org

Deepalaya's [4] eight learning places/schools including a versatile transport ('Education on Wheels) give instruction to 100,000 socio-monetarily hindered youngsters in Delhi. Also, its three professional instructional hubs in Delhi, Uttarakhand, and Haryana have an enrolment of 508 understudies. What's more, in organization with the Mewar Dev Agency,

Deepalaya has advanced 1,173 self-improvement gatherings for 13,523 ladies in 84 towns of Haryana.

F. Ashanet.org

The strategic the US-enrolled Asha for Education (AFE) [1] is to "catalyze financial change in India through the training of oppressed youngsters". The Asha Trust, enlisted in India in 2003, is focused on the strengthening of minimized areas of society, with instruction being its primary core interest.

III. CLIENT-SIDE SURVEY

We played out a study which we shared among our volunteers. We accumulated the reactions into graphical organizations for better understanding. Coming up next were the principle parameters of the overview: Age gathering, volunteers, and donation. Here are some significant discoveries of the client-side study.

A. Age Group

All Among the kids that are a piece of the NGO, we saw that most of the focused-on segment has a place with the age gathering of 3-5 years. Thus, we can conclude which level of education must be given to the children that are part of an NGO.

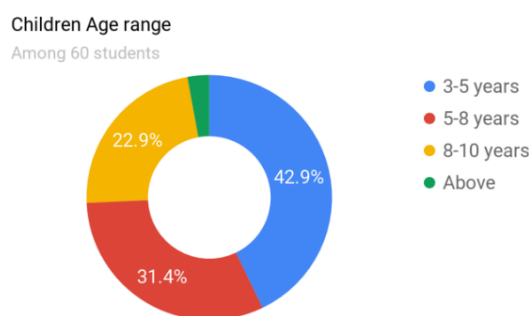


Fig-1: Children's age response.

B. Volunteers

As most of the NGOs' volunteers are college students, this shows the participation of students from each year from different colleges with which it is affiliated. Here, we see that most of the focused on segment has a place with the first year students of the college.

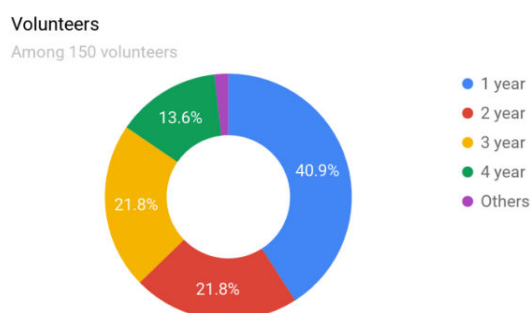


Fig-2: Volunteers graduation year response.

C. Donation or Sponsorship

For running an NGO there is a requirement of funds, for children's education, providing basic material for studying, conducting events. These are collected from various sources. From the demographic representation, it is clear that most of the funds are collected by the cultural events that are organized by the NGO for the students.

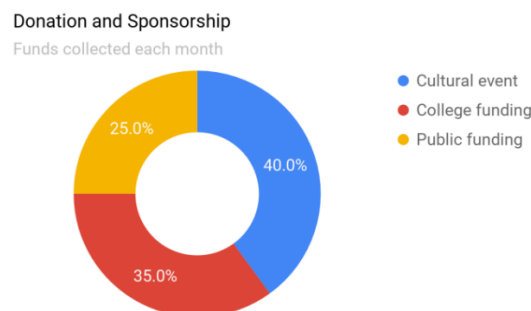


Fig-3: Funds collected by NGO Using the Template

IV. PROPOSED SYSTEM

In the wake of breaking down the current framework, the responses to questions presented to the NGO, is a mobile application with digital learning, map location, upcoming events with geographical location, payment and donation, call function. The application comprises of two primary stages:

A. Client Side



Fig-4: Depiction of Client Portal

A client at first needs to enroll into Wings application and enter his fundamental subtleties after which he is enlisted. Once signed in, the client can see a dashboard that enrolls the different highlights offered by the application like digital learning, upcoming events with geographical location, payment and donation, gallery, map location, call function, etc. A user can open various modules that are mentioned before.

There are various additional features given to the volunteers to add the details of the upcoming events, add new content for learning, and add new images in the application. In this application, volunteers have recorded the attendance of the children. that are attending the classes that are conducted by the NGO.

B. NGO Portal

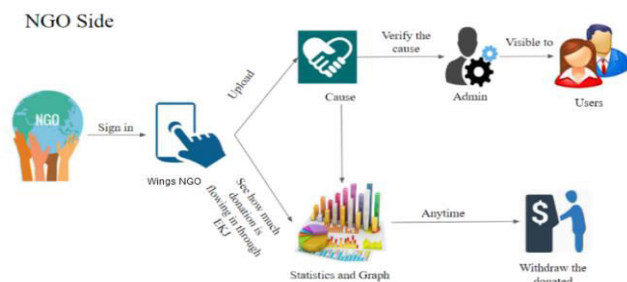


Fig-5: Depiction of the NGO Portal.

The volunteers and students who want to be a part of wings need to at first register themselves on the application after which it can sign in. The client needs to give subtleties like name, Aadhar number, gender, city, Pin code, blood group, password etc. Once you are logged in, all the available modules can be used that are provided. The student can access

student modules and the volunteer can access the volunteer modules and admin has a separate section of his own features.

C. System Module

The proposed framework is an android application with cooperation between backend Java SDK and Android APIs, the database and front end as XML file format.

Table-1: Technology stack

	Technology Stack
Front End	XML File Format
Back End	Java SDK & Android APIs
Database	Google Firebase

Table-2: Comparison of existing systems

System Name	Android app	User Interactivity	Minimum Individual Donation (Rs.)	Payment Methods	Digital Learning	Attendance Record	Event Details
PrathamConnected	Yes	High	1	Bank	Yes	Yes	No
Lab On a Tab	Yes	Medium	Null	Null	Yes	No	No
bba.org	No	Low	Null	Null	No	No	No
Centralsquarefoundation.org	No	Medium	Null	Null	No	No	No
deepalaya.org	No	Medium	1	Cards/Banks/Cheque/DD	No	No	No
Ashanet.org	No	High	5	Cards/PayPal	No	No	No
Wings NGO	Yes	High	1	Cards/Wallets/UPI/Bank	Yes	Yes	Yes

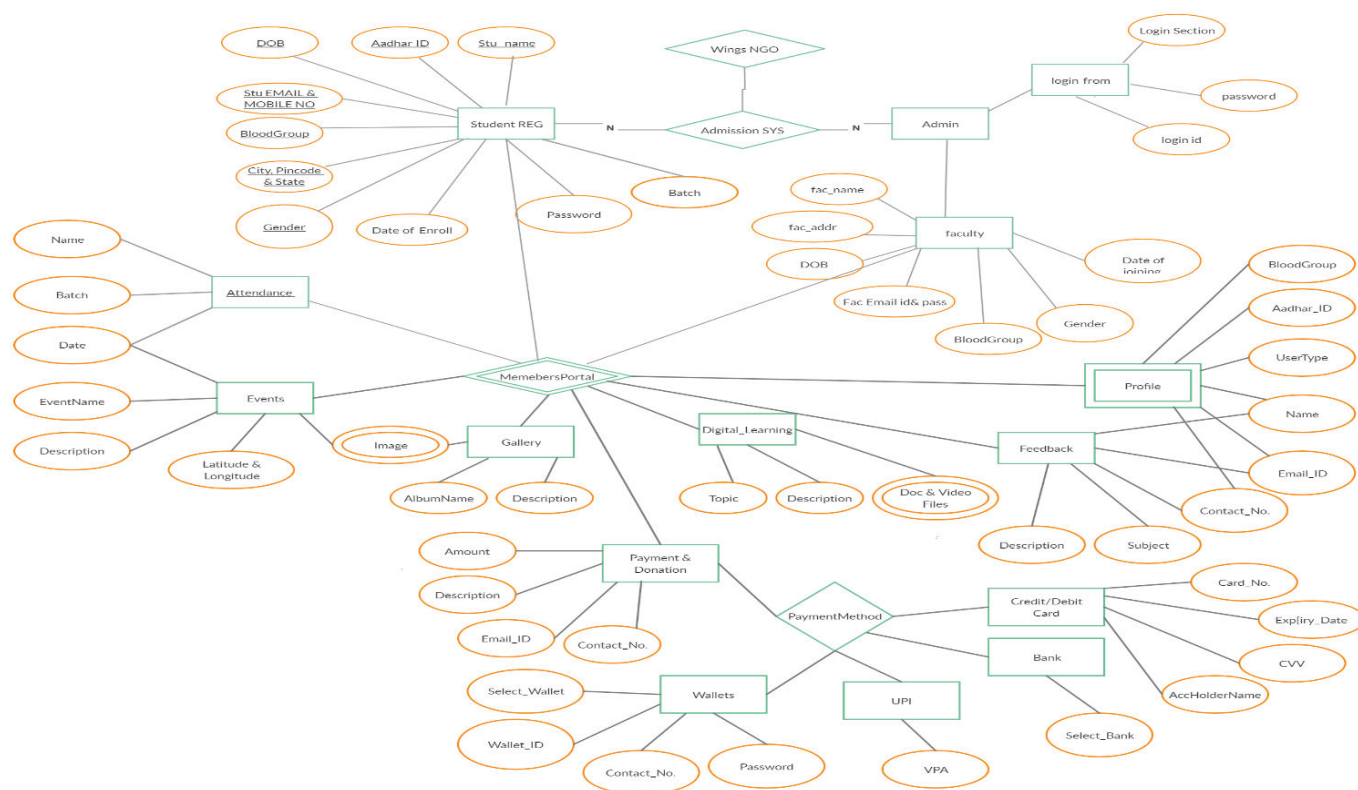


Fig-6: Entity-Relation Diagram

V. CHALLENGES

The capacities to rapidly make a versatile application and change them quickly are basic to making emergency information accessible readily available. We distinguished three difficulties for creating versatile applications: (I) long advancement cycle, (ii) expensive spending plan, and (iii) absence of deft turn of events. As a rule, a NGO's project is an immediate reaction to a progressing emergency, and given the brief timeframe outline, these difficulties are unconquerable.

We have discovered that it for the most part takes around a year to completely create and send one versatile application and the expense can frequently be estimated in the size of a huge number of rupees. There are numerous variables for the extensive improvement cycle and expensive spending plan. As a matter of first importance, NGOs frequently need house versatile application designers and the portable application improvement and sending undertakings are regularly re-appropriated. Besides, necessity changes regularly happen part of the way through or close to the finish of the project cycle and they frequently require extra assets. The need for an application building stage that empowers quick prototyping and fast testing of an application has gotten perpetually clear. It assists with refining the prerequisites that probably won't be clear toward the starting when structuring the application.

VI. CONCLUSION

This paper proposes the idea of Wings (Umeedo Ko Pankh) - an android application to provide education to underprivileged students. Given a huge number of issues the NGO countenances to achieve the upliftment of the kids,

because of absence of both fiscal and non-money related structure and issues some well-wishers face because of the lack of clarity of the techniques, Wings means to unite these two areas. This paper examinations the current NGOs training framework, their professionals, and cons, the responses to the poll set forth and proposes a framework that attempts to consolidate every one of these highlights into a solitary application that can achieve change in the public arena.

VII. FUTURE WORK

At present, we have begun taking a shot at a model which incorporates all the above highlights. We are additionally as of now inquiring about the execution of live online sessions for the students which is an integral part of the application. We are also working on chatbot so that the interaction between the student and volunteers can become stronger and during live sessions, students' doubts can easily be cleared. When the full working model is finished, the application will be discharged supporting Android phones. Our NGO intends to bring however many volunteers and understudies as could reasonably be expected to join. As the quantity of individuals included better is changed.

Acknowledgments

The undertaking was done under our B.Tech project at the Department of Computer Science and Engineering, IMS Engineering College, Ghaziabad. The work has been directed by our internal mentor Dr. Soumi Ghosh. We are a lot of appreciative to our Hon'ble HOD Dr. Pankaj Agarwal for his appreciable contribution in this project work. Nonetheless, we

express our thanks and regards to all Department Faculty Members for their sincerest help and support. We are thankful to Mr. Siddharth Wadhvani for giving us the opportunity to work on this NGO android application and present it as our final year project in our college.

References

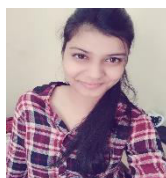
- [1]. Ashanet.org (2020). Asha for Education is a mainstream association devoted to change in India by concentrating on essential instruction in the conviction that training is a basic imperative for financial change. [Online] Available at: <https://ashanet.org/> [Accessed 15 Mar 2020].
- [2]. Bba.org (2020). The Bedford Business Association is a developing gathering of more than 250 entrepreneurs who share information, thoughts, and the energy for our Bedford Community. [Online] Available at: <https://bba.org/> [Accessed 27 Feb 2020].
- [3]. Centralsquarefoundation.org (2020). It is a non-benefit association working with the vision of guaranteeing quality school training for all kids in India. [Online] Available at: <https://centralsquarefoundation.org/> [Accessed 27 Feb 2020].
- [4]. Deepalaya.org (2020). Deepalaya is an ISO 9001:2008 ensured non – government association that has confidence in empowering independence and is focused on chipping away at issues influencing the urban and country poor, with a unique spotlight on women and children. [Online] Available at: <https://deepalaya.org/> [Accessed 07 Mar 2020].
- [5]. Lab On a Tab (2020). The Lab-on-a-Tab (LoT) is an advanced task being considered at Agastya Foundation concentrated on giving quality science training through powerful utilization of touch screen versatile innovation. [Online] Available at: <https://sites.google.com/site/labonatab/> [Accessed 20 Feb 2020].
- [6]. Pratham Connected (2020). Pratham is an inventive learning association made to improve the nature of training in India. [Online] Available at: <https://pratham.org/> [Accessed 20 Feb 2020].

BIOGRAPHIES

Mr. Gaurav Singh is currently pursuing B.Tech from IMS Engineering College, Ghaziabad. He did his Schooling from Kendriya Vidyalaya New Cantt, Allahabad. His research areas include Mobile Application, Software Engineering, IOT, Programming Systems and Database Management Systems (DBMS).



Ms. Kajal Garg is currently pursuing B.Tech from IMS Engineering College, Ghaziabad. She did her Schooling from Summet Rahul Memorial, Agra. Her research areas include Mobile Application, Software Engineering, IOT and Salesforce.



Ms. Medha Gupta is currently pursuing B.Tech from IMS Engineering College, Ghaziabad. She did her Schooling from Radha Krishna Public School, Amroha. Her research areas include Mobile Application, Software Engineering, IOT and Database Management Systems (DBMS).



Mr. Priyansh Gupta is currently working as a junior associate engineer at NAGARRO Software, Gurgaon. He is pursuing B.Tech from IMS Engineering College, Ghaziabad. He did his Schooling from Allahabad Public School & College in Allahabad. His area of research includes Mobile Application, Software Engineering, Big data, IOT and Network marketing.



Dr. Soumi Ghosh is working as Assistant Professor in IMSEC and having more than 4.5 years' experience with a great passion of Teaching and performing research work as a Software Data Scientist in the Computer Science and industrybased software field.



She possess a strong technology professional background with a Doctor of Philosophy - PhD (CSE) and Gold Medalist M.Tech (CSE) in Computer Science & Engineering from Amity School of Engineering and Technology, Amity University Uttar Pradesh, Noida. Her research areas include software engineering, data mining, computational intelligence, machine learning, pattern recognition and fuzzy logic. She has published more than 15 research papers in some reputed international journals and conferences. She has also received best paper awards for her work. She is a member of IAENG and ISTE. She is also working as Editorial board of reviewers in various technical journals and conferences at national and international levels.