<u>**Proposal**</u>

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Incubator: -
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Objective: Priority in Vaccination for Autism Individuals through Mobile Application
Type of Intervention: Vaccination drives community engagement and post vaccination studies.
Details of intervention:

1. Product/Technology

Autism Spectrum Disorder (ASD) is the most common neurodevelopmental disorders among children. ASD is characterized by impairments in social, behavioural, and communication[1]. Estimated prevalence of ASD in Indian population was 0.1 to 0.2% in 2019[2,3]. Autism people are at greater risk of contracting COVID-19 and developing severe diseases. Services and support for the autistic individuals are limited due to COVID-19 pandemic. A priority should be given to autism adults, health care and direct care professionals who work with them. We will develop an android mobile application through which parents of autism individuals can register their data, identify the nearby vaccine centers, communicate with the parents of other autism individuals through chat box, track the vaccine availability, and get preference in vaccination.

2. Methodology

2.1 Design and development of android application
- Design of a server (Amazon or AWS)
- Development of android mobile application (Android studio, Java, Kolton)
- Communication between server and mobile application (php, dotnet)

2.2 Database
- Database of autism individuals will be obtained from the nearby hospitals and special schools around the Varanasi
- Data of vaccination centers and its availability will be obtained from local village offices, community centers, district hospitals and primary health centers
- Data of the current location of the vaccine will be obtained through the courier company transporting the vaccination
- Data of supply management will be obtained from the vaccine supplying companies

2.3 Communicate the project activities to different target audiences
- The objectives of the communication plans is to raise general public awareness on mobile application and its impact on special kids
- Mobile application software will be posted in Google play store, updates of the application will be posted in the social networks, including LinkedIn, Facebook, and Twitter
- The awareness will be given to general public and parents of the special kids through the camps hosted at the public halls and special kids schools

2.4 Community Education and Engagement
- Parents of autism individuals can communicate with the parents of other autism individuals thought the chat box

2.5 Contact management
- Address of the contact points in the city will be displayed in the mobile application

2.6 Analytics and reporting
- A reports on the number of autism individuals completed vaccination will be generated

[1] American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders (5th Edition). American Journal of Psychiatry
[2] http://www.rehabcouncil.nic.in/writereaddata/autism.pdf
[3] Chauhan A. et al., (2019) Prevalence of autism spectrum disorder in Indian children: A systematic review and meta-analysis, Neurol India.

2.7 Organizational Support
- A separate chat box to communicate with the teachers of special kids, professionals and doctors to discuss about the vaccines

2. *Milestones*
- Develop the android application
- Collect the data from autism individuals and different sources
- Test the android application

3. *Timelines*

Months	1	2	3	4	5	6
Data collection	■	■	■	■	■	■
Server design	■	■				
Application design	■	■	■			
Communication		■	■	■	■	
Testing and validation						■

4. *Financial*

Resources	Number of resources	Cost
Human Resources 1. System admin 2. Backend developer 3. Frontend developer 4. Designer 5. Data collector	5 (BE/ME (Computer Science), BSc/MSc (Psychology) qualified persons)	4,50,000 (15,000 Rs per month and will be provided for 6 months for 5 resource persons) Cost of the human resource can be reduced by utilizing the undergraduate, postgraduate and summer internship students undergoing project under my guidance
Hardware accessories	5 (Lenovo (i7, 9th Generation, 16 GB RAM, 1 TB HDD, 2GB Graphics Card, DOS, Wifi-Bluetooth, 32 inch monitor, wireless keyboard & Mouse, 3 year warranty)	5,95,000 (Each 1,19,000)
Power backup device	1 (BPE Online 3KVA UPS with 2 Hrs)	1,15,000
Servers	40 GB (Amazon light sail web services)	1,16,000 (2900 per GB)
Software accessories	Dot.net, php, android studio	50,000
Transportation	Cab rent for around 1000 km	90,000 (9 Rs per km)
Annual Maintenance	Maintaining and updating the information in the software	50,000
Total	-	14,66,000

Do you have State Government connection, or will you require support from CSR – **States that you can provide technology to:** Require support from CSR

Please answer following questions depending on the intervention you choose and if applicable to you:
a. **Can you do the Community engagement yourselves or will need help by CSR:** Ourselves
b. **If you have a Market ready technology available:**
   We will develop the application and collect the data within 6 months' time duration
c. **Do you wish to partner with an NGO? If yes, name the NGO and provide details on how you will partner?**: Ourselves

Future Scope:
The data collected will be used for the further research purposes and follow-up studies that my include signal, imaging or behavioral measurement studies.