Informatics Institute of Technology

Project Proposal

Team Pyrux – Healthy Kid

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Content

Project Initiation

➢ Current Problem and Background to the problem

In countries like India, Sri Lanka, Bangladesh and Pakistan, many of the health services are poor compared to the other developed countries. Some of the clinics/hospitals are too far away, too crowded, or too expensive. Because of that, parents usually don't go to the clinics or hospitals and do a medical checkup. Therefore, sometimes parents are too late to identify any early development disorders and malnutrition issues of their children. In this scenario we have considered children below six.

So what can be done to improve health services and health outcomes of these children? How can we help more than 200 million children globally who does not reach their developmental potential as a result of malnutrition and lack of cognitive and social stimulation during early childhood? Through our windows based mobile application anyone who has the windows mobile phone can easily identify the early childhood disorders within few seconds. From the application itself it will notify the parent whether the child is suffering from any early childhood disorder and will give suggestions to the parents.
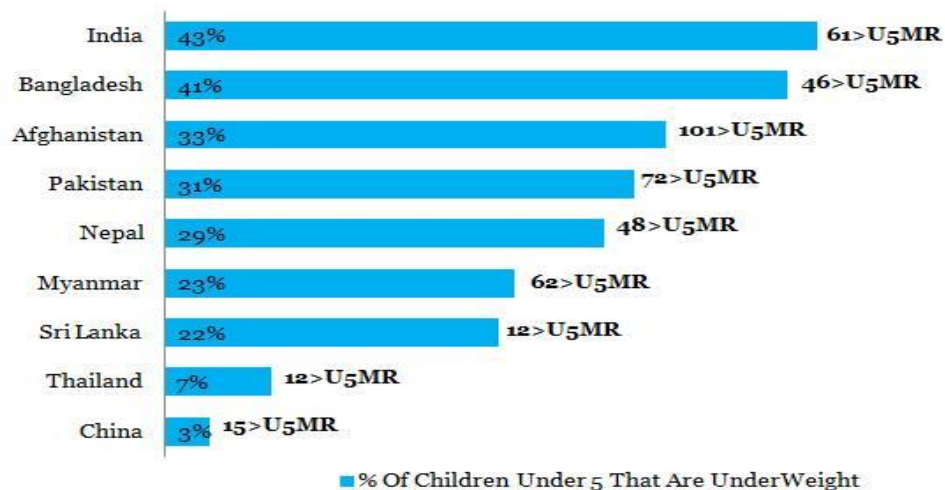
➢ Project Aims and Objectives

Our main aim is to help parents to identify the early childhood disorders of their child without going to the doctor, through a windows based mobile application. We will be giving various tests and suggestions to the parent to check the disorders of their child. And if the child has any illnesses, the app will notify what to do next and finally connect the doctor through our mobile and desktop application. The main objective of assessing a young child's development is the early detection of delayed or abnormal development in order to help children achieve their maximum potential.

Project objectives

- To identify abnormal speech and language development (Ex: hearing loss, autistic spectrum disorders, dysarthria)
- To identify the abnormal motor development of the child. (Ex :- Cerebral palsy, congenital myopathy, spinal cord lesions)
- To identify the abnormal development of social communication skills. (Ex :-autistic spectrum disorders)
- To check the hearing impairment.
- To identify the abnormality of vision.
- Implement an immunization reminder.
- Replace the ordinary child health development card with a digital card which keeps all records in the windows azure cloud service.
- Check the nutrition level of the child via inputting weight and height.

India Vs Neighbouring Countries: Malnutrition & Death Rates For Children Under 5

Country	% Of Children Under 5 That Are UnderWeight	U5MR
India	43%	61>U5MR
Bangladesh	41%	46>U5MR
Afghanistan	33%	101>U5MR
Pakistan	31%	72>U5MR
Nepal	29%	48>U5MR
Myanmar	23%	62>U5MR
Sri Lanka	22%	12>U5MR
Thailand	7%	12>U5MR
China	3%	15>U5MR

■ % Of Children Under 5 That Are UnderWeight

U5MR: Under 5 Mortality Rate
Source: World Health Organisation

➢ **Budget Estimate**

	Estimated Budget (USD)
Software license purchase cost	100
Testing cost	50
IT personnel cost	200
Publishing cost	100
Total	450

➢ **Potential Risks**

- Will the funds requested for the project be sufficient to deliver the project?
- Underestimate the project deadline inability to deliver the product in time.
- Will the project involve safety issues?
- Dependencies can be inaccurate.
- Project team misunderstand requirement.
- Resources shortfalls.
- Design is infeasible.
- Requirement fails to align with strategy.
- Interruption from natural disaster and data loss.

Project feasibility

➢ Economic feasibility

We are developing a windows mobile application and an accompanying desktop application. Our product is only a software application that runs on windows mobile. Additional hardware systems are not included in our product. Initial investment is for purchasing required software application to develop windows mobile app. (Visual studio 2015) and licensing of other third party software.

Our mobile application is capable of running on any windows 8 mobile phone and according to current market windows mobile phones are the cheapest smartphones available. So end-user computer hardware purchase cost is less.

Revenue of our product is gain through activation of pro features and other services. Mobile application is free to download through windows store.

➢ Technical Feasibility

Team Pyrux consists three developers and one marketer. Our developers are very capable in java and C# languages. We are using visual studio 2015 to develop mobile and desktop application. Any mobile phone with windows 8 operation system will be able to run the application.

➢ Operation Feasibility

Our target audience includes parents who have children less than 6 years old. Most of these people are around age of 20 to 40 years and most of them use mobile phones in day to day life. Mobile phone is not a sophisticated, hard to understand equipment in current days. And our application will be available in both English and Sinhala language. Understanding of operating our app is straightforward.

➢ Legal Feasibility

Main objective in our application is to encourage parents in seeking medical advices from a doctor. We don't attempt to prescribe medicine or involve in management of diseases in children. We only provide suggestions and possible set of diagnosis based on up-to-date authenticated medical literature. Information and data collected from users are transferred and stored in secured platform. All measures are taken to provide maximum data protection for end user.

Schedule Feasibility

We expect to release a prototype of our application within 3 months of time period and another one month for testing and evaluation process. Time available to complete the project is feasible.

Resource Feasibility

All the medical related information will be taken from WHO approved reliable sources and latest research done on early childhood disorders are considered in developing our app. Technology using to develop application is readily available.

Market Research Study

Marketability

Since 'Healthy Kid' addresses the health needs of kids in developing countries like Sri Lanka it has a good chance of being used by parents and health workers. Lifestyles of modern people was subjected to major change over these few years. One of those changes is a situation where children are paid less attention due to the competition. Back in the day children were given proper care at the right time. However due to the busy lifestyles this pattern is fading away. However, it is visible that no matter how occupied a person is he/she takes time to use a smart phone. Introducing an application to keep track of your child's health is friend in need and we consider that marketing this easy to use application to busy parents is a great step.

Target Market

Microsoft Windows is the most used operating system in the world. Therefore, anyone who could afford a Windows phone or a computer with windows installed on is able to use this application. People using this technology usually belongs to medium to high income. Hence, this is our target audience.

Marketing Mix
❖ Product

The title 'Healthy Kid' itself expresses what our product is about. In depth we develop a windows application which is supposed to help parents to keep track of their child's growth stages. Other than that we target in supporting health works too. The application will be developed for both Windows mobile and desktop platforms.

❖ Price

'Healthy Kid' will come out as a free version in its first developmental stages. However it will contain a few pro features which the customer can purchase if they are satisfied with the basic features of the product. Our goal is to provide a valuable service to the people in need. Therefore, most of the needed features will be provided free.

❖ Place

The application will be available on our official website and the mobile users can search in the Windows App Store too. So, the distribution channel will be from developer to customer directly.

❖ Promotion

We hope to use newspapers and other social media based promotional activities to publicize our application. An official website, a Facebook page and a Twitter page will be maintained to keep in touch with customers and also to advertise upcoming features. During special seasons and special days like children's day the application will have special discounts for their buyers.

➢ **Objectives**

➢ Why us?

You're reading this now because you received proper education and overcame any disorders you had. But what if your growth was neglected while you had some disorder no one found out? That is why we plan to develop this application which is very user-friendly so even if you lack knowledge in children's health this application will guide you through. This is much of a service rather than a commercial application. Parents tangled in their busy lifestyles will find this application a useful guide in keeping track of their children. Parents could get in touch with a doctor and get their question answered very easily. Just like browsing your social network daily you could visit our application and keep in touch with your bookmarked doctors and also learn facts you could've missed in the health field.

➢ Intention

Growing up in a decade where people try to sell anything to earn a few dollars more, it is hard to select what to buy and what not to when it comes to eating. It is also hard to know if your child is struggling with learning or is your child late in developing if you have a busy life style where nanny's look after children or they end up in daycare centers. To overcome these problems 'Healthy Kid' will play a major role in your parenting carrier. Identifying disorders with various tests, finding out about healthy food for your child, getting in touch with doctors while staying at home to get your questions answered are a few of the useful features of this application. All these factors getting along together is what makes this application a success. Trust is one of the main goals we hope to achieve. Getting parents trust what they read and the feedback they get is a critical part. We expect that, with time we will be able to gain it. As mentioned before, we are more of a service than a

commercial group. Therefore our intentions are quite transparent to anybody. We sincerely hope that this application is a great step forward in supporting children's health.

Project Scope

➢ **Scope statement**

Our product consist of windows mobile application and companion desktop application for medical practitioners.

We try address the shortcoming and delaying of identifying childhood development disorders. And encourage parents to seek medical advices early in disease. Our app will help every child to achieve maximum development potential.

➢ **Product Characteristics/Requirements**
- Windows mobile phone application
- Windows desktop application
- Synchronization of data through windows azure
- Digital child health development record
- Notifications for next immunization
- Guideline for identify early childhood disorders
- Childhood malnutrition tracker

➢ **Out of Scope**
- Giving treatment for children
- Prescribing medicine and management
- Providing final diagnosis
- Replacement of medical practitioner

➢ **Distribution of work**
- Isuru Amantha   - Software Development and Designing
- H.A.L. Pradeep - Software Development and Designing
- Salitha Lakshan - Software Development and Designing
- Andrew Eugene – Marketing and Business analysis

- ➢ **Hardware/software requirements**
  - Hardware – Windows mobile phone running windows 8

    Desktop running windows 8

  - Software - Visual studio 2015

    Windows phone SDK, Azure Cloud Service

- ➢ **Applicable standards**

  WHO (world health organization) standards

- ➢ **Acceptance criteria**

  Our mobile application can be download free of cost from windows store for any mobile phone running windows 8. Prototype version of application will be released prior for evaluation process. Application will be tested thoroughly to identify bugs and performance of the app will maintained in wide verity of hardware. Content of the app will monitor and authenticate by medical practitioners.

- ➢ **Deliverables**

  - Report on current state of production release monthly.
  - Prototype of the app will be release within 3 months.
  - At the end of a four-week evaluation period, an evaluation report will be written and   delivered.
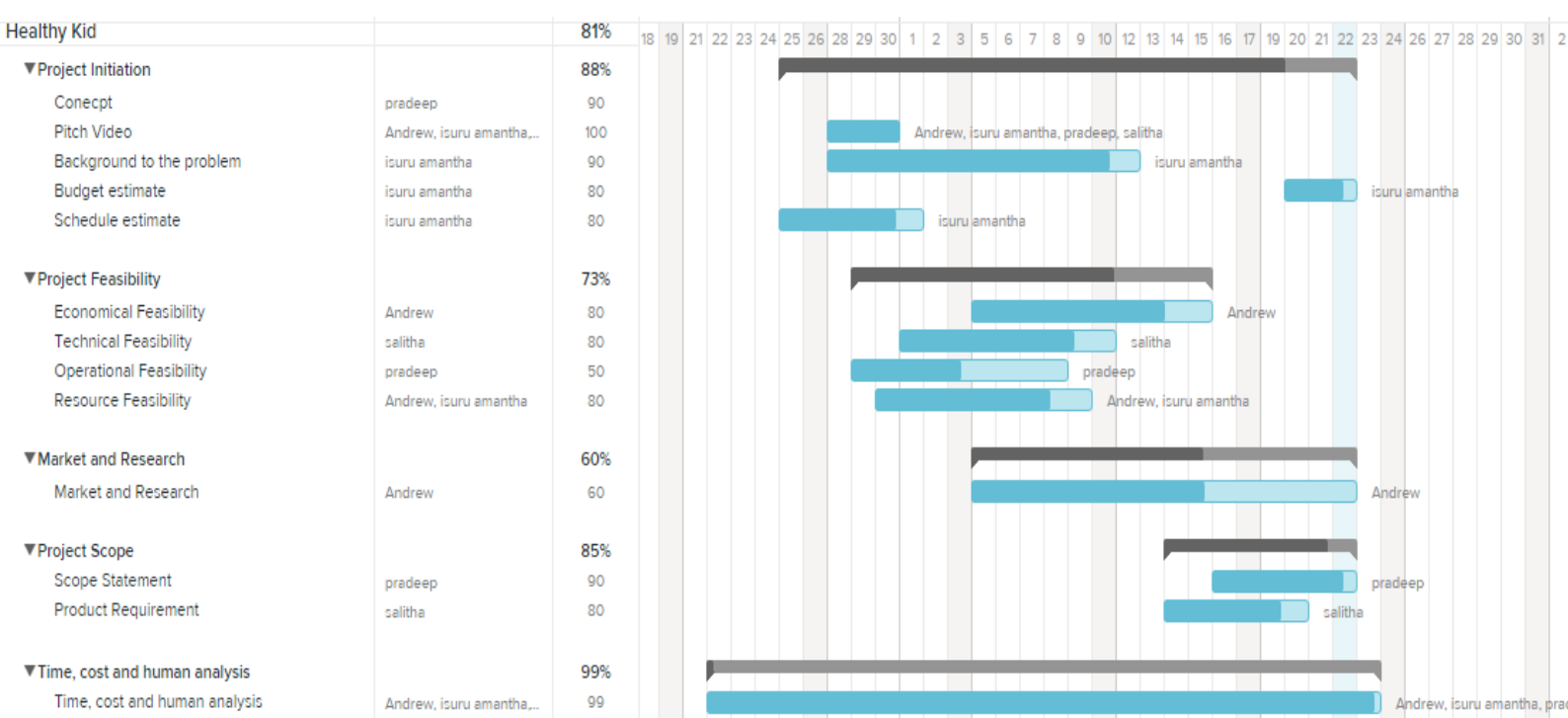 - Final version of the app will release within 4 months.

➢ **Summary of the project**
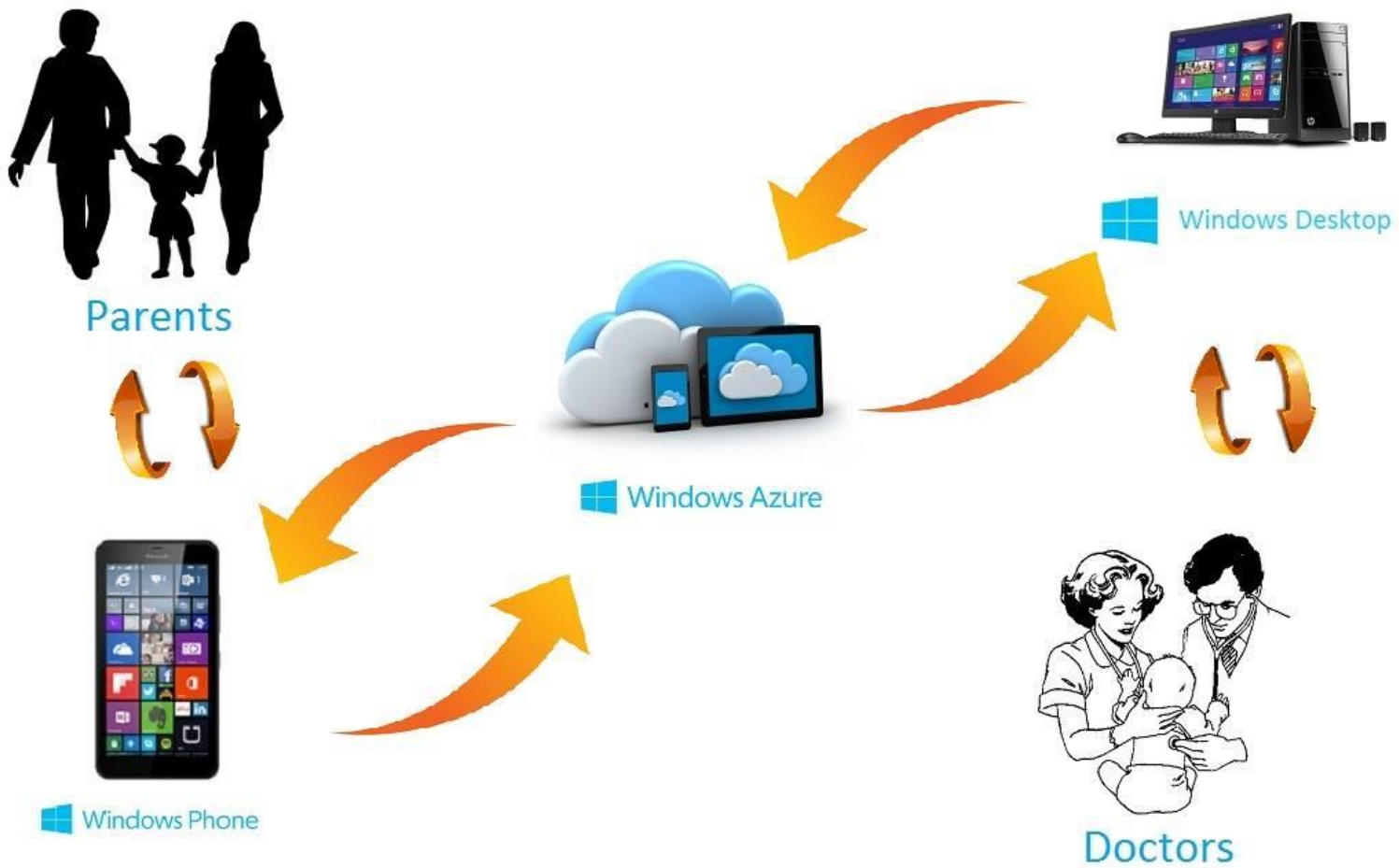
(This diagram will show the interrelated interaction between the user, mobile phone, cloud service and the doctor)

Project Planning

> ➤ **Detailed Project Scope (WBS,WBS, dictionary)**

(This is a Gannt chart which includes all the details about the scope, time, cost, human resources, budget, feasibility etc.)

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