



# **MedIT Solutions**

## **Business Plan**

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### **Instructor/Potential Investor:**

Mr. Amir Iqbal

### **Group Members:**

|                 |          |
|-----------------|----------|
| Shahrukh Khan   | 16L-4531 |
| Usman Tariq     | 16L-4165 |
| Muhammad Faique | 16L-4196 |
| Muhammad Kamran | 16L-5446 |

National University Of Computer and Emerging Sciences  
Department of Computer Science  
Lahore, Pakistan

## 1. Executive Summary

It comes as no surprise that the need of expert medical doctors who are the top of their respective specializations has always existed since the birth of modern medicine and their demand has only increased with time. With this rapidly increasing demand in expert medical doctors comes the need of hospitals that can employ such qualified doctors and hence make them available to the public. According to the World Health Organization, approximately 50% of healthcare expenditures are used to create new hospitals or upgrade and maintain the existing ones. Therefore, the number of hospitals, clinics and pharmacies will keep increasing with time as the population increases as well.

With the development of technology, everything has become automated and digitalized, including hospitals and pharmacies. The different processes that were performed by pen and paper traditionally, have now been replaced by computer systems to manage and store the data. However, some hospitals still do not have IT systems and others that do, have outdated legacy systems that makes all the business processes inefficient.

Our business idea aims to provide today's hospitals, clinics, pharmacies and pharmaceutical companies with up-to-date Electronic Health Record (EHR) Systems that will help these medical firms to store, manage and utilize their data in the most efficient and cost effective manner. Hospitals currently produce 50 petabytes of data every year. Obviously, some sort of platform will be needed to store and manage all that data to produce useful output. Our EHR Systems will aid the hospitals in easily managing this huge amount of data.

Our Target Market comprises mostly of medium to large sized medical firms in Florida, as the state is home to the highest percentage of population that are 65+ in age. The older the population, the more healthcare is required and hence, the more number of hospitals and therefore, greater number of companies that provide healthcare software solutions are needed. Also with the ongoing pandemic, it is safe to assume that more hospitals will require our systems as Florida has the third highest number of corona virus cases in the United States, which is the country with the most number of corona virus cases in the world.

We have a healthy competition in this line of business as companies like Athenahealth and Nextgen already have EHR Systems that are user-friendly and offer efficient solutions to hospitals. However, their solutions are quite expensive and not every hospital or pharmacy out there will be able to afford it, and even those that will be able to afford it, they would certainly not mind a more economical alternative. We aim to be that economical alternative. With our main work force in the city of Lahore, our investments and costs will be made in Pakistan Rupees whereas our clients will be the hospital and pharmaceutical companies' executives from Florida who will pay us in U.S. Dollars. The standard costs of an EHR System can go up to more than 70,000 dollars. We will be offering the same solution to our clients for about 10 to 30,000 dollars without compromising quality. The exchange rate between the PAK Rupee and the US Dollar will play to our advantage. However, we will only use this strategy for the first couple of years of our business in order to attract promising clients. Once our business is

well established, we will gradually start to charge a higher price for our solutions with the aim of expanding our business to the other states as well.

Our team comprises of four executives: who are also the four partners of the business with equal share of 25% each. In addition, we have a Marketing Manager who will ensure that our business is strongly advertised and marketed to the public. We also have an HR manager, to manage our human resources, which includes 8 developers, 3 designers and 3 testers. We also have 2 project managers who will be ensuring that everything is running smoothly and all deadlines are met.

Moreover, we have explored 3 sources of funding for our startup. We checked out a few crowdfunding websites such as Go-fund-me and Kick-Starter. In addition, we also did thorough research on the incubators that were available to us in Lahore and found that Plan9 was one of the best ones - hence we had signed a deal with them for funding. We also found a few angel investors, some of our friends and relatives who were interested in funding our startup.

Our business idea is quite promising as it has a very wide scope and high future demand. Healthcare firms like hospitals, pharmacies and pharmaceutical enterprises will always exist and hence will always require medical IT software to manage their business processes and resources efficiently and productively. Even if our company does not turn out to be as successful as we expected it to be, we will ensure that a portion of our revenue is always kept aside and saved as future assets, which will be needed for our exit strategy. In case the company goes to a loss, the financial damage done to the business partners and shareholders will be reduced as much as possible.

## 2. Opportunity

### The problem and solution

Currently, the world population increases every year by almost 81 million people. This increase in population leads to a greater number of patients and therefore, greater number of doctors that will be needed to deal with them. As the number of patients, doctors and other medical staff in a hospital increases, it becomes more difficult to manage all their data and efficiently store them for either retrieval/historical purposes or for research projects.

In today's fast world of rapid technological development, an IT management system is required by most businesses and firms if not all. In the same way, even Hospitals and pharmacies require IT systems that can aid them in efficiently managing their business processes and enormous amounts of data. This IT system can either be an Electronic Health Record (EHR) System, or just a general healthcare software solution that will make it easier for the hospital and their pharmacies to manage and keep track of their patient data and their inventory of medical items. This is where our business idea steps in. Our startup aims to jump into the market that provides healthcare IT solutions or EHR Systems for hospitals, clinics and pharmaceutical companies. The hospitals and clinics can use our products to manage the inventory of surgical and medical equipment, store historical data of patients, schedule patients with staff and other such tasks. While there are other companies that provide IT solutions for such hospitals and pharmaceutical companies, it is safe to assume that the need of such IT firms will also increase with time as the human population and hence, the number of patients and doctors will only continue to rise.

### Target Market

The target market will be composed of all medium to large sized hospitals, clinics, pharmaceutical companies and pharmacies in the United States. Small sized medical entities can approach us to get an EHR System or a general customized healthcare software solution installed if they want to, but in most circumstances it will be counter-productive for them as not every small clinic will be able to afford our products and services. Also, small sized clinics would in most cases, not require an EHR System to manage their processes as their data is not significantly large.

### Total Available Market (TAM)

The total available market for our business would be all the medium to large sized hospitals, clinics, pharmaceutical companies and pharmacies. According to an annual survey conducted by The American Hospital Association in 2018, the total number of hospitals in the U.S is 6,146. In addition, the total number of available pharmacies in the United States is approximately 26,246 according to IBISWorld website, while the number of known pharmaceutical companies are about 500. Hence, the total available market would be about **32,892 healthcare firms**.

### **Serviceable Available Market (SAM)**

Out of the 6,146 hospitals, about 1,821 hospitals are Rural Community Hospitals. In many of these rural hospitals, computers are not used in majority functional areas of the hospital as the staff of these rural hospitals lack the basic computer skills required. Moreover, the number of independently owned rural pharmacies in the United States was about 6,393 in 2018, according to Rural Policy Research Institute from the University Of Iowa College Of Public Health.

Hence our serviceable available market would be only those hospitals, clinics and pharmacies that are based in the urban areas of the United States. This would make our serviceable available market to be **24,678 healthcare firms** which is about 75% of the total available market.

### **Serviceable Obtainable Market (SOM)**

Our immediate target will be the hospitals and pharmacies in the state of Florida in the United States. According to PRB website, Florida is the state that has the 2<sup>nd</sup> highest percentage of population that is 65 or older in age - which is 20.5 percent of Florida's population. It comes as obvious knowledge that the older population requires more healthcare services and hospitals and of course, pharmacies that can provide them with the medication they need to stay healthy. Moreover, Florida contains the third highest number of hospitals which is 215 hospitals, coming after Texas (361 hospitals) and California (344 hospitals). This is due to the fact that it has the third highest number of population as well, after Texas and California.

According to the Office of Economic and Demographic Research, Florida's population growth is close to 1.5% per year. In addition, Florida is home to the 3<sup>rd</sup> highest number of corona virus cases. Hence, it is safe to assume that as the population will continue to rise with the ongoing pandemic, so will the number of hospitals that will be needed to be established in order to tackle with health issues in the state.

Since there are 215 hospitals and about 220+ medium to large sized pharmaceutical companies in Florida, our serviceable obtainable market would be up to **435 healthcare firms**, which we will be trying to reach and win them over as clients in the next 2-3 years.

### **Ideal Customer**

The ideal customers for our business will be the already existing medium to large sized hospitals and pharmaceutical companies that are still running all of their processes on legacy systems and desire an upgrade to an EHR System or a customized, more efficient healthcare IT solution. In addition, even the newly established hospitals and pharmacies would be our potential customers as we would be offering quality products at a price lesser than that of our competitors, which would be suitable for new hospitals and pharmaceutical companies that cannot afford high priced software solutions.

## **Competition**

Our competition consists of the already established EHR and medical software vendors of USA. The following are some of the competition:

### **EPIC**

Epic is an EHR Vendor that focuses on large medical groups and inpatient settings. They are well known for having a software that is easy to use and implement.

### **CERNER**

Cerner is another supplier that provides 55+ specialties, and healthcare is one of them.

### **ATHENAHEALTH**

Athenahealth offers cloud-based solution and is known for offering a more modern user interface.

### **NEXTGEN**

Nextgen is well known for providing EHR solutions for small to medium sized medical entities.

## **How we are different from our competitors**

Seeing how well established these firms already are might bring forth insecurities and second thoughts about our business idea. However our business idea will be unique and different from the solutions provided by the above stated vendors, in the sense that first of all, we will not only provide an EHR system but also a customizable healthcare IT solution. Our product will be suitable for those large hospitals and pharmacies who will be looking to customize the EHR system to suit their specific and unique business needs.

In addition to the same quality which most vendors already provide such as easy to use interface and smooth implementation process, our product will also be more cost effective for our customers. Usually, costs of purchasing an EHR system can go up to \$70,000. Since our main work force will be in Lahore, we will be offering our solutions ranging between \$10,000 and \$30,000, which will still be profitable for our company as our main work force and staff will be in Lahore. The exchange rate between the United States Dollar and Pakistan Rupee will play an important role in our business, especially in the early years as to attract clients we will offer them high quality solutions that too for a price that can save their business costs as well. Even though the small sized hospitals and pharmacies are not a part of our target market, still there is a strong possibility that some small hospitals might approach us since our product is more economical.

**Future products and services**

Our future goal for the company would be to slowly expand our business. First of all, in a few years, once our business is well established and up and running, we will start taking clients from Lahore as well and gradually from other major cities of Pakistan, such as Karachi and Islamabad. We will also be closely watching and analyzing the market need and demand for our line of business and accordingly we will try to expand our business across other states of the US as well. However, these are only long term plans - our immediate focus is only on the customers of Florida and their need of EHR and Custom Healthcare systems to deal with the ongoing pandemic as well as other factors as stated earlier.

### **3. Execution**

#### **Marketing and Sales Plan**

##### **Positioning Statement**

Same quality services using latest and reliable technology with respect to EHR in economical cost than others. Majority population living in Florida is aged and needs more medical facilities so do hospitals and clinics. Competitors are not using latest technology and if using then providing it expensively. Our Solutions will be available in economical price suitable for majority hospitals and clinics budget.

##### **Pricing**

Market based pricing model will be used for pricing. As we are offering solutions for large to medium sized hospitals and pharmaceutical companies, pricing will depend upon project complexity e.g. customized, upgradation etc. and prices will be positioned at low-end of the market definitely according to current market to keep it economical for the client.

##### **Promotion**

The promotion of our solutions will be done through creative paid advertisements on social media, ephemeral content, YouTube videos, websites related to medical etc. which is economical too for beginning.

#### **Operations**

##### **Sourcing and fulfillment**

We will provide two types of solutions to our clients i.e. upgradation of existing software and customized software (made from scratch). For shipment of these software, we will provide both cloud services as well as client-server systems as per demand of the hospitals or pharmaceutical companies but we will prefer our customers to use cloud service as it has clear advantage over client-server system which includes simple implementation ,easy updates and is economical regarding IT sources.

##### **Technology**

We will be using latest technology to implement an EHR system as well as for designing customized health care systems. Software will be divided into two components i.e. Front-End and Back-End. Following are the technologies with some of their advantages which we will be using in these components:



- **Front-End**

**Libraries:** React, Vue.js (Fast Rendering, guarantees stable code, boosts productivity)

**Languages:** CSS 3, JS, HTML 5 (Easy maintenance, consistent)

- **Back-End**

**Server:** NGINX (Easy Installation, Best for serving static files)

**Framework:** Laravel (Error and Exception Handling, Automation of Testing Work)

**Database:** MySQL, Redis (Exceptionally fast, Supports rich data types)

**Hosting:** AWS, VULTR (Simple implementation, economical, easy to update)

## Milestones and Metrics

As Launching or upgrading of your first solution or product is the utmost milestone of the business but in our scenario, we would like to set our major milestone as to expand our services from Florida to its neighboring state and so on as our business starts to settle in Florida.

### Traction

Getting our first funding approved from the incubator center “Plan-9” for this project was one of the biggest milestone which motivated and encouraged us to carry on this idea and transform it into a business.

### Metrics

Metric which we will be looking closely would be ratio of orders completion of medium to large hospital or pharmaceutical companies for estimating which type of companies approach us more so we could manage our team and needs according to that scenario. Other metrics which will be monitored would be total services given in months to be compared with previous months to get an idea of our business progress. Orders cancellation metric will help us to spot early troubles and short-comings.

## Key assumptions and Risks

Following are some of the key assumptions and risks:

- As our business promotion strategy mainly relies on ads on social media then we will be making assumption that costs of that advertising and the percentage of ad viewers will actually make a purchase done.
- Getting another order from a good pharmaceutical company or hospital will depend on our progress and rating so we will be making assumption that we have to complete our order on time with all resources in a perfect manner.
- If we will suffer a loss in business than we will be making assumptions of different scenarios that whether our performance was not good, states internal issue, dollar price variance etc.

## 4. Team and Company

### Our Team

Our business team consists of the following people:

- **Chief Executive Officer** - Shahrukh Khan who came up with our business idea, is the highest ranking executive of our company. He has the management responsibility of this organization and makes all of the major corporate decisions. Shahrukh has extraordinary leadership skills and lots of experience in leading many projects. Shahrukh has a Master's degree in Computer Science.
- **Chief Operating Officer** - Usman Tariq who has the responsibility of establishing policies, setting goals and implementing Strategies. Usman has a Bachelors degree in Computer Science.
- **Chief Financial Officer** – Faique Khan has the responsibility of managing financial actions, tracking cash flow, determining company financial strength and weakness. Faique has a Bachelors degree in Computer Science and a Master's degree in Finance and Accounting.
- **Chief Technical Officer** - Muhammad Kamran has the technological vision, and has the capabilities to evaluate the system technically. Kamran has a Bachelor's degree in Computer Science.
- **Human Resource Manager** - Abdul Rafay has the responsibility of recruiting and interviewing new candidates. He has a BBA degree.
- **Marketing Manager** - Abdullah Khan has the responsibility of attracting more customer to use our service. He has a bachelor's degree in Marketing.
- **3 Frontend Developers** - They have the responsibility of structure and designing of web pages and has expertise in designing. All of them have Bachelor's degree in Computer Science.
- **5 Backend Developers** - They have the responsibility of coding and debugging. All of them have Bachelor's degree in Computer Science.

- **3 Quality Assurance** - They have the responsibility of detection and resolution of problems. All of them have Bachelor's degree in Computer Science.
- **2 Project Managers** - They have the responsibility of organizing and motivating a team. Both have a Master's Degree in Software Project Management.
- **3 UI/UX Designers** - They have the responsibility of designing user interface. They have expertise in graphic designing.

## **Mission Statement**

Our Mission is to provide powerful and reliable EHR system as well as customizable healthcare software solutions to support Medical Pharmacies, hospitals and pharmaceutical companies to improve clinical decision support and provide the information they need for health improvement.

## **Vision**

Our vision is to make medical technology flexible, reliable, user friendly and make them affordable for new hospitals and pharmacies as well. We want to make all the medical information useful, available and easily manageable for the medical entities. We want to make a positive impact to the community we serve.

## **Ownership and Structure**

Our Company is based on Partnership. The CEO, COO, CFO and CTO of our company are the partners of the company. They are 4 Software Engineers who have sufficient corporate experience, aiming to provide Healthcare IT Solution for hospitals and pharmaceutical companies. All the 4 partners have an equal share of 25% each.

## **Intellectual Property**

Our intellectual property includes Trademark which include name, Domain name and logo. Copyrights which includes Software, Design, Database. Trade secrets which include techniques and patterns. We will take necessary legal action against the violators of our intellectual property.

## Logo



## Location

Our office is located in Lahore near Faisal town, as Lahore is well known for software house. We can easily hire the good developer and other People for operation. In Lahore all the facilities are available which we need for this business. We are running our operation from this office. As we are going to target Florida customers, so our second office is in Florida for attracting new customers.

## Funding Sources

- **Incubators**

Plan9 is Pakistan largest incubator in Pakistan, it is a project of Punjab Information Technology Board (PITB). Plan9 help and grow tech startup into successful business. Plan9 offered free office space, stipend, mentorship, training and legal advice for 6 month. In return Plan9 expects nothing as it is Government project.

- **Angel Investor**

Angel investor are wealthy individuals or group of individuals who invest their money in exchange of equity share in the business. Angel investor can be one of your contacts or you can find through web. There and many angel investors available.

- **Crowdfunding**

It allows an individual to give funds to support project with the use of internet. There are around 600 Platform available for crowdfunding around the world. Gofundme and KICKSTARTER are the crowdfunding platform who has raised \$9B and \$3B through crowdfunding. Crowdfunding demand special reward in return like shares.

**Initial Capital**

At first we used our personal savings for this venture. When our funding is exhausted, we were needed additional capital which was Raising Capital. We used Plan9 as it not expect anything in return and provide every facility like office, internet, support, training which is needed for our venture and they also help us to grow our business. Plan9 save us from many things like electricity cost, water cost, office cost etc. Plan9 set our plans which resolves all the issues efficiently. As we have two office, Lahore uses Plan9 funding. Florida office uses angel investors for funding, as one of our contacts agreed to fund for the initial investments.

## 5. Financial Plan

### Sales Forecast

This section explains how we divide our products into categories and how much of the units of each type of product is predicted to be sold in the next 3 years. The combined sales forecast is in a separate excel file, to make it easier to calculate next year's plans. Please refer to the 'MedIT Sales Forecast' excel file that has been submitted along with the business plan. Our product is divided into 4 groups, i.e.

- 1- Product A is for small medical companies.
- 2-Product B is for medium medical companies.
- 3- Product C is for larger medical companies.
- 4- Product D is custom build software if our consumer is not satisfied with our packages.

Our Assumption is based on annual budgeting.

1. Utilities and Bills are increased 10% every year.
2. Average salary of data engineers is around 48,000Rs per month and staff is increasing as per growth in the business yearly.
3. New equipment would be required to develop the product, such as generation core i7 pcs, new Routers for efficient connectivity to the cloud.

Cost would be required for the research department; this cost will decrease annually.

| MedIT Sales Forecast for 3 Years |             |             |             |             |             |             |             |             |             |             |             |             |                  |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Forecast Start                   |             | 16-01-20    |             |             |             |             |             |             |             |             |             |             |                  |
| MedIT Sales Forecast             |             |             |             |             |             |             |             |             |             |             |             |             |                  |
|                                  |             |             |             |             |             |             |             |             |             |             |             |             | Year 1           |
| Units Sold                       | Jan-20      | Feb-20      | Mar-20      | Apr-20      | May-20      | Jun-20      | Jul-20      | Aug-20      | Sep-20      | Oct-20      | Nov-20      | Dec-20      | Total Units Sold |
| Product A/Small Company          | 3           | 1           | 1           | 1           | 5           | 2           | 1           | 2           | 1           | 4           | 5           | 3           | 29               |
| Product B/Medium Company         | 1           | 1           | 4           | 4           | 2           | 1           | 1           | 5           | 6           | 5           | 2           | 2           | 34               |
| Product C/Large Company          | 1           | 4           | 5           | 2           | 1           | 5           | 6           | 3           | 5           | 1           | 4           | 3           | 40               |
| Product D/Custom Software        | 2           | 1           | 5           | 6           | 1           | 4           | 1           | 4           | 2           | 5           | 2           | 2           | 35               |
| Unit Price                       |             |             |             |             |             |             |             |             |             |             |             |             | Avg Unit Price   |
| Product A/Small Company          | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00      |
| Product B/Medium Company         | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00      |
| Product C/Large Company          | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00 | \$30,000.00      |
| Product D/Custom Software        | \$15,000.00 | \$10,000.00 | \$21,000.00 | \$23,000.00 | \$20,499.00 | \$13,149.00 | \$15,000.00 | \$12,000.00 | \$18,000.00 | \$16,000.00 | \$14,000.00 | \$12,033.00 | \$15,806.75      |
| Sales Growth Rate                |             |             |             |             |             |             |             |             |             |             |             |             | Avg Growth Rate  |
| Product A/Small Company          | 0%          | -67%        | 0%          | 0%          | 400%        | -60%        | -50%        | 100%        | -50%        | 300%        | 25%         | -40%        | 51%              |
| Product B/Medium Company         | 0%          | 0%          | 300%        | 0%          | -50%        | -50%        | 0%          | 400%        | 20%         | -17%        | -60%        | 0%          | 49%              |
| Product C/Large Company          | 0%          | 300%        | 25%         | -60%        | -50%        | 400%        | 20%         | -50%        | 67%         | -80%        | 300%        | -25%        | 77%              |
| Product D/Custom Software        | 0%          | -50%        | 400%        | 20%         | -83%        | 300%        | -75%        | 300%        | -50%        | 150%        | -60%        | 0%          | 77%              |

| Revenue                   | (Units Sold * Unit Price)                        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | Total Revenue      |
|---------------------------|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| Product A/Small Company   | \$30,000   | \$10,000         | \$10,000         | \$10,000         | \$50,000         | \$20,000         | \$10,000         | \$20,000         | \$10,000         | \$40,000         | \$50,000         | \$30,000         | \$290,000          |
| Product B/Medium Company  | \$20,000   | \$20,000         | \$80,000         | \$80,000         | \$40,000         | \$20,000         | \$20,000         | \$100,000        | \$120,000        | \$100,000        | \$40,000         | \$40,000         | \$680,000          |
| Product C/Large Company   | \$30,000   | \$120,000        | \$150,000        | \$60,000         | \$30,000         | \$150,000        | \$180,000        | \$90,000         | \$150,000        | \$30,000         | \$120,000        | \$90,000         | \$1,200,000        |
| Product D/Custom Software | \$42,000   | \$10,000         | \$105,000        | \$138,000        | \$20,499         | \$52,596         | \$15,000         | \$48,000         | \$36,000         | \$80,000         | \$28,000         | \$24,066         | \$599,161          |
| <b>Total Revenue</b>      | <b>\$122,000</b>                                 | <b>\$160,000</b> | <b>\$345,000</b> | <b>\$288,000</b> | <b>\$140,499</b> | <b>\$242,596</b> | <b>\$225,000</b> | <b>\$258,000</b> | <b>\$316,000</b> | <b>\$250,000</b> | <b>\$238,000</b> | <b>\$184,066</b> | <b>\$2,769,161</b> |
| Unit COGS                 |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | Avg COGS           |
| Product A/Small Company   | \$8,000.00                                       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00       | \$8,000.00         |
| Product B/Medium Company  | \$15,450.00                                      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00      | \$15,450.00        |
| Product C/Large Company   | \$25,000.00                                      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00      | \$25,000.00        |
| Product D/Custom Software | \$11,150.00                                      | \$6,000.00       | \$14,500.00      | \$19,450.00      | \$15,000.00      | \$10,000.00      | \$12,250.00      | \$9,000.00       | \$10,000.00      | \$15,000.00      | \$11,000.00      | \$10,000.00      | \$11,945.83        |
| Margin Per Unit           | (Unit Price - Unit COGS)                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | Avg Margin         |
| Product A/Small Company   | \$2,000.00                                       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00       | \$2,000.00         |
| Product B/Medium Company  | \$4,550.00                                       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00       | \$4,550.00         |
| Product C/Large Company   | \$5,000.00                                       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00       | \$5,000.00         |
| Product D/Custom Software | \$3,850.00                                       | \$4,000.00       | \$6,500.00       | \$3,550.00       | \$5,499.00       | \$3,149.00       | \$2,750.00       | \$3,000.00       | \$8,000.00       | \$1,000.00       | \$3,000.00       | \$2,033.00       | \$3,860.92         |
| Gross Profit              | (Revenue - COGS or Margin Per Unit * Units Sold) |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | Total Gross Profit |
| Product A/Small Company   | \$6,000  | \$2,000          | \$2,000          | \$2,000          | \$10,000         | \$4,000          | \$2,000          | \$4,000          | \$2,000          | \$8,000          | \$10,000         | \$6,000          | \$58,000           |
| Product B/Medium Company  | \$4,550  | \$4,550          | \$18,200         | \$18,200         | \$9,100          | \$4,550          | \$4,550          | \$22,750         | \$27,300         | \$22,750         | \$9,100          | \$9,100          | \$154,700          |
| Product C/Large Company   | \$5,000  | \$20,000         | \$25,000         | \$10,000         | \$5,000          | \$25,000         | \$30,000         | \$15,000         | \$25,000         | \$5,000          | \$20,000         | \$15,000         | \$200,000          |
| Product D/Custom Software | \$7,700  | \$4,000          | \$32,500         | \$21,300         | \$5,499          | \$12,596         | \$2,750          | \$12,000         | \$16,000         | \$5,000          | \$6,000          | \$4,066          | \$129,411          |
| <b>Total Gross Profit</b> | <b>\$443,853</b>                                 | <b>\$30,550</b>  | <b>\$77,700</b>  | <b>\$51,500</b>  | <b>\$29,599</b>  | <b>\$46,146</b>  | <b>\$39,300</b>  | <b>\$53,750</b>  | <b>\$70,300</b>  | <b>\$40,750</b>  | <b>\$45,100</b>  | <b>\$34,166</b>  | <b>\$542,111</b>   |

| Year 2                    |                    |  |  | Year3                     |                    |  |  | Yr 2 vs Yr 1              |            | Yr 3 vs Yr 2 |            |
|---------------------------|--------------------|--|--|---------------------------|--------------------|--|--|---------------------------|------------|--------------|------------|
| Units Sold                | Total Units Sold   |  |  | Units Sold                | Total Units Sold   |  |  | Units Sold                | % Change   |              | % Change   |
| Product A/Small Company   | 21                 |  |  | Product A/Small Company   | 27                 |  |  | Product A/Small Company   | -28%       |              | 29%        |
| Product B/Medium Company  | 33                 |  |  | Product B/Medium Company  | 35                 |  |  | Product B/Medium Company  | -3%        |              | 6%         |
| Product C/Large Company   | 35                 |  |  | Product C/Large Company   | 37                 |  |  | Product C/Large Company   | -13%       |              | 6%         |
| Product D/Custom Software | 36                 |  |  | Product D/Custom Software | 37                 |  |  | Product D/Custom Software | 3%         |              | 3%         |
| Unit Price                | Avg Unit Price     |  |  | Unit Price                | Avg Unit Price     |  |  | Unit Price                | Difference |              | Difference |
| Product A/Small Company   | \$12,000.00        |  |  | Product A/Small Company   | \$13,000.00        |  |  | Product A/Small Company   | \$2,000.00 |              | \$1,000.00 |
| Product B/Medium Company  | \$21,000.00        |  |  | Product B/Medium Company  | \$22,000.00        |  |  | Product B/Medium Company  | \$1,000.00 |              | \$1,000.00 |
| Product C/Large Company   | \$33,212.00        |  |  | Product C/Large Company   | \$35,212.00        |  |  | Product C/Large Company   | \$3,212.00 |              | \$2,000.00 |
| Product D/Custom Software | \$18,002.00        |  |  | Product D/Custom Software | \$19,002.00        |  |  | Product D/Custom Software | \$2,195.25 |              | \$1,000.00 |
| Sales Growth Rate         | Avg Growth Rate    |  |  | Sales Growth Rate         | Avg Growth Rate    |  |  | Sales Growth Rate         | Difference |              | Difference |
| Product A/Small Company   | 40%                |  |  | Product A/Small Company   | 5%                 |  |  | Product A/Small Company   | -11%       |              | -35%       |
| Product B/Medium Company  | 47%                |  |  | Product B/Medium Company  | 48%                |  |  | Product B/Medium Company  | -2%        |              | 1%         |
| Product C/Large Company   | 70%                |  |  | Product C/Large Company   | 71%                |  |  | Product C/Large Company   | -7%        |              | 1%         |
| Product D/Custom Software | 78%                |  |  | Product D/Custom Software | 79%                |  |  | Product D/Custom Software | 1%         |              | 1%         |
| Revenue                   | Total Revenue      |  |  | Revenue                   | Total Revenue      |  |  | Revenue                   | Difference |              | Difference |
| Product A/Small Company   | \$252,000          |  |  | Product A/Small Company   | \$351,000          |  |  | Product A/Small Company   | (\$38,000) |              | \$99,000   |
| Product B/Medium Company  | \$693,000          |  |  | Product B/Medium Company  | \$770,000          |  |  | Product B/Medium Company  | \$13,000   |              | \$77,000   |
| Product C/Large Company   | \$1,162,420        |  |  | Product C/Large Company   | \$1,302,844        |  |  | Product C/Large Company   | (\$37,580) |              | \$55,002   |
| Product D/Custom Software | \$648,072          |  |  | Product D/Custom Software | \$703,074          |  |  | Product D/Custom Software | \$48,911   |              | \$371,426  |
| <b>Total Revenue</b>      | <b>\$2,755,492</b> |  |  | <b>Total Revenue</b>      | <b>\$3,126,918</b> |  |  | <b>Unit COGS</b>          | Difference |              | Difference |

| Total Revenue             | \$2,755,492         | Total Revenue             | \$3,126,918         | Unit COGS                 | Difference      | Difference    |
|---------------------------|---------------------|---------------------------|---------------------|---------------------------|-----------------|---------------|
| Unit COGS                 | Avg COGS            | Unit COGS                 | Avg COGS            | Product A/Small Company   | (\$2,000.00)    | \$371,426.00  |
| Product A/Small Company   | \$8,000.00          | Product A/Small Company   | \$8,000.00          | Product B/Medium Company  | (\$450.00)      | \$2,000.00    |
| Product B/Medium Company  | \$15,000.00         | Product B/Medium Company  | \$17,000.00         | Product C/Large Company   | (\$2,000.00)    | \$1,000.00    |
| Product C/Large Company   | \$23,000.00         | Product C/Large Company   | \$24,000.00         | Product D/Custom Software | \$1,254.17      | \$3,000.00    |
| Product D/Custom Software | \$13,200.00         | Product D/Custom Software | \$16,200.00         | Margin Per Unit           | Difference      | Difference    |
| Margin Per Unit           | Avg Margin          | Margin Per Unit           | Avg Margin          | Product A/Small Company   | \$4,000.00      | (\$1,000.00)  |
| Product A/Small Company   | \$6,000.00          | Product A/Small Company   | \$5,000.00          | Product B/Medium Company  | \$1,450.00      | (\$1,000.00)  |
| Product B/Medium Company  | \$6,000.00          | Product B/Medium Company  | \$5,000.00          | Product C/Large Company   | \$5,212.00      | \$1,000.00    |
| Product C/Large Company   | \$10,212.00         | Product C/Large Company   | \$11,212.00         | Product D/Custom Software | \$941.08        | \$1,000.00    |
| Product D/Custom Software | \$4,802.00          | Product D/Custom Software | \$2,802.00          | Gross Profit              | Difference      | Difference    |
| Gross Profit              | Total Gross Profit  | Gross Profit              | Total Gross Profit  | Product A/Small Company   | \$68,000        | \$9,000.00    |
| Product A/Small Company   | \$126,000           | Product A/Small Company   | \$135,000           | Product B/Medium Company  | \$43,300        | (\$23,000.00) |
| Product B/Medium Company  | \$198,000           | Product B/Medium Company  | \$175,000           | Product C/Large Company   | \$157,420       | \$57,424.00   |
| Product C/Large Company   | \$357,420           | Product C/Large Company   | \$414,844           | Product D/Custom Software | <b>\$43,461</b> | (\$69,198.00) |
| Product D/Custom Software | \$172,872           | Product D/Custom Software | \$103,674           | <b>Total Gross Profit</b> | \$312,181       | (\$25,774)    |
| <b>Total Gross Profit</b> | <b>\$854,292.00</b> | <b>Total Gross Profit</b> | <b>\$828,518.00</b> |                           |                 |               |

## Personnel Plan

We have a total of fifteen employees. All of them are IT specialists, i.e. five database engineers, three front-end developers, and three for quality assurance, two for project management, and three for graphic design. In Pakistan, the average monthly salaries of database engineers are between Rupees 48,000 and 150,000, for Front-end developers between Rupees 78,000 and 158,192, for Quality Assurance engineers between Rupees 40,000 and 90,132, for the project manager between Rupees 8,0000 and 200,000, for the graphic designer is between Rupees 30,000 and 150,0000. On a monthly basis, yearly taxes are subject to withholding tax of 0% (WHT) if below 60000, 5% (WHT) if below 120000, 15% (WHT) if below 1000000, 22.5% (WHT) if below 2500000, 25% (WHT) if below 8000000 which tax must be deducted from the gross amount paid to the beneficiary. The other expenses spent on each employee are 8%. The following table will describe our plan:

## Business ratios and break-even analysis

| Business Ratios |                       |
|-----------------|-----------------------|
| Debt-to-equity  | 0.33%                 |
| Current ratio   | 0.29%                 |
| Analysis        | The DTI ratio is good |

## Budget Distribution

|                      | Monthly  | Annual    | Taxes                     |
|----------------------|----------|-----------|---------------------------|
| Database engineers   | 49500 Rs | 594000 Rs | Rate of income tax is 10% |
| Front-end developers | 53428 Rs | 64176 Rs  | Rate of income tax is 10% |



|                        |          |           |                           |
|------------------------|----------|-----------|---------------------------|
| Quality assurance      | 34518 Rs | 414216Rs  | Rate of income tax is 10% |
| Project manager        | 60000 Rs | 720000 Rs | Rate of income tax is 10% |
| Graphic design.        | 46500 Rs | 558000 Rs | Rate of income tax is 10% |
| <b>Others Expenses</b> |          |           |                           |
| Housing & Utilities    | 10000 Rs | 120000 Rs | Rate of income tax is 5%  |
| Transportation         | 8000 Rs  | 32000 Rs  | Rate of income tax is 0%  |
| Food & Meals Out       | 5000 Rs  | 60000 Rs  | Rate of income tax is 0%  |

**Year 1**

|                         | <b>Monthly</b> | <b>Yearly</b> |
|-------------------------|----------------|---------------|
| Total Income before Tax | 266946 Rs      | 3203352 Rs    |
| Total Income After Tax  | 240252 Rs      | 2883024 Rs    |
| Total Budget            | 291000 Rs      | 3500000 Rs    |
| Net Income              | 50748 Rs       | 608976 Rs     |

**Year 2**

The Budget is increased up to 500000 on a monthly basis and is increased up to 600000 on a yearly basis. Meanwhile (Yearly ratio of taxes increased up to 2%)

|                         | Monthly   | Yearly     |
|-------------------------|-----------|------------|
| Total Income before Tax | 277946 Rs | 333532 Rs  |
| Total Income After Tax  | 274593 Rs | 3295116 Rs |
| Total Budget            | 500000 Rs | 600000 Rs  |
| Net Income              | 225407 Rs | 2704884 Rs |

**Year 3**

The Budget is increased up to 600000 on a monthly basis.

The Budget is increased up to 7200000 on a yearly basis.

Meanwhile (Yearly ratio of taxes increased up to 2%)

|                         | Monthly   | Yearly     |
|-------------------------|-----------|------------|
| Total Income before Tax | 299946 Rs | 3599352 Rs |
| Total Income After Tax  | 257953 Rs | 3095436 Rs |
| Total Budget            | 600000 Rs | 7200000 Rs |
| Net Income              | 342046 Rs | 4104557 Rs |

## Income Statement

Our Assets for this business is already declared. The profit was more than what we expected. The detailed design is shared in a separate excel file. The Profit is calculated using the formula:

$$\text{Profit} = \text{Total Revenue} - \text{Total expenses.}$$

| MedIT Solutions                   |  | Income Statement                                      |                |
|-----------------------------------|--|---|----------------|
|                                   |  | For the Years Ending [Dec 31, 2020] and Dec 31, 2019] |                |
| Revenue                           |  | 2020  | 2019           |
| Sales revenue                     |  | 110,000   | 100,000        |
| Service revenue                   |  | 200,000   | 180,000        |
| <b>Total Revenue</b>              |  | <b>310,000</b>  | <b>280,000</b> |
| Expenses                          |  |   |                |
| Advertising                       |  | 5,000   | 2,000          |
| Commissions                       |  | 1,000   | 1,500          |
| Cost of Products                  |  | 6,500   | 6,300          |
| Employee benefits                 |  | 4,800   | 5,000          |
| Gpus,routers                      |  | 5,000   | 8,000          |
| Insurance                         |  | 10,000  | 12,000         |
| Maintenance and repairs           |  | 12,000  | 10,000         |
| Income taxes                      |  | 22,750  | 21,050         |
| Salaries and wages                |  | 33,140  | 21,149         |
| Travel                            |  | 12,000  | 10,000         |
| Food and Meals Out                |  | 6,000   | 5,500          |
| <b>Total Expenses</b>             |  | <b>118,190</b>  | <b>102,499</b> |
| <b>Total Profit</b>               |  | <b>191,810</b>  | <b>177,501</b> |
| Taxes Calculation                 |  |   |                |
| Net Income Before Taxes           |  | 191,810   | 177,501        |
| Income tax expense                |  | 22,750  | 21,050         |
| <b>Net Income(After expenses)</b> |  | <b>169,060</b>  | <b>156,451</b> |

## Cash flow statement

This section involves the details of how the cash will flow in and out of the company. The detailed design is shared in a separate excel file, for the ease of computation of profits and losses. Net profit is calculated using our product sales, total revenue after taxes, and other expenses. The following graph includes the profit for this year and also includes the prediction of profits and loss for the coming years. The following assumption we made for this.

## Assumptions

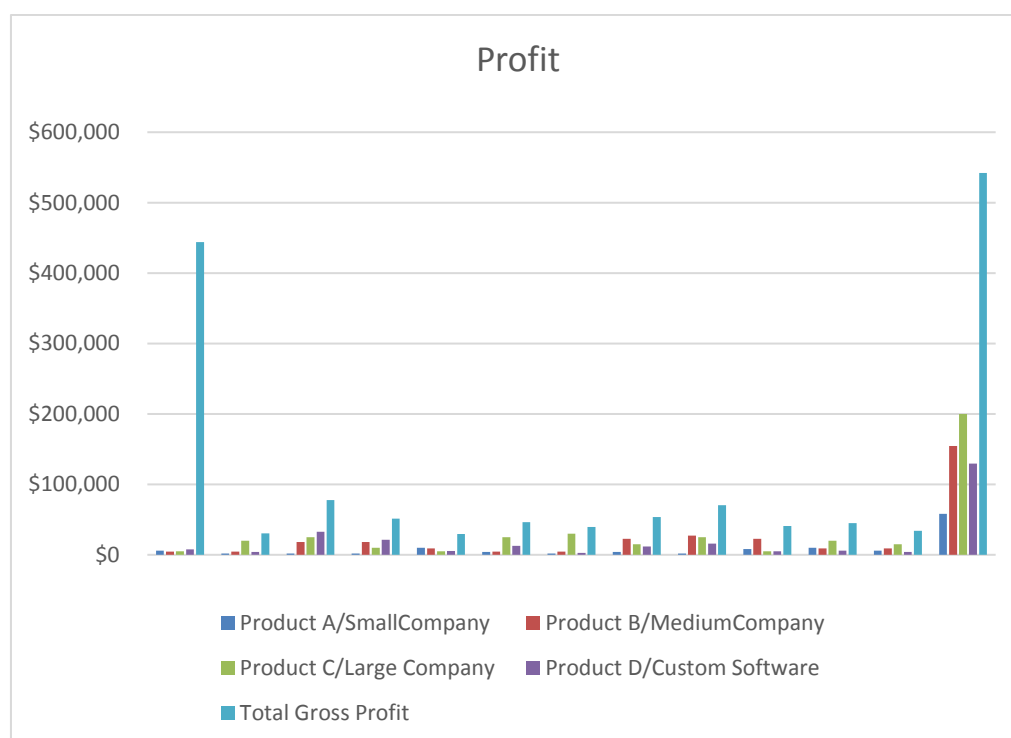
Our cash flow is based on the following Assumption:

1. The cost of office setup will be increased due to the hiring of new members. This ratio varies as needed and typically takes up to 9 percent.
2. Taxes are expected to increase from 5 to 8 percent.
3. Utility expenses or bills increase by up to 10 percent.
4. Equipment and maintenance costs can increase by up to 10 percent.
5. Employees' wages are increased by up to 6 percent.
6. Insurance and security costs might reach up to 15%

**Discount Factor:**  $1 / (1+0.1)^Y$ , where Y is year passed

**NPV:** Discount Factor \* money

**CNPV:** CNPV (last year) + NPV (current year)



| MedIT Solutions                               |           |
|---|-----------|
| Cash Flow Statement                           |           |
| For the Year Ending                           | 31-12-19  |
| Cash at Beginning of Year                     | 300,000   |
| <b>Operations</b>                             |           |
| Cash paid for                                 |           |
| General operating and administrative expenses | (10,200)  |
| Wage expenses                                 | (10,000)  |
| Interest                                      | (150)     |
| Employees Salaries                            | (120,000) |
| Issuance fee                                  | (100,000) |
| Income taxes                                  | (5,280)   |
| Net Cash Flow from Operations                 | (245,630) |
| <b>Investing Activities</b>                   |           |
| Cash receipts                                 |           |
| Land for new branch                           | (50,000)  |
| Cash paid for                                 |           |
| Purchase of property and equipment            | (7,500)   |
| Purchase of investment securities             | (10,000)  |
| Net Cash Flow from Investing Activities       | (67,500)  |
| <b>Financing Activities</b>                   |           |
| Cash paid for                                 |           |
| Repayment of loans                            | (10,000)  |
| Net Cash Flow from Financing Activities       | (77,500)  |
| Net Increase in Cash                          | (390,630) |
| Cash at End of Year                           | (90,630)  |

## Balance Sheet

The following balance sheet contains all the aspects ratio.

| MedIT Solutions   |                                    | Balance Sheet       |                     |
|---|------------------------------------|---------------------|---------------------|
|   |                                    | Date: 31/10/2020    |                     |
| Assets  |                                    | 2020                | 2019                |
| <b>Current Assets</b>   |                                    |                     |                     |
| Cash  |                                    | 887,440             | 887,330             |
| Accounts receivable   |                                    | 374,000             | 371,000             |
| Inventory   |                                    | 988,000             | 978,000             |
| Short-term investments  |                                    | 997,400             | 996,200             |
|   | <i>Total current assets</i>        | \$ 3,246,840        | \$ 3,232,530        |
| <b>Long-term investments</b>                                  |                                    |                     |                     |
| Property, equipment   |                                    | 440,000             | 430,000             |
| (Less accumulated depreciation)                               |                                    | 892,220             | 712,200             |
|   |                                    | \$ 1,332,220        | \$ 1,142,200        |
| <b>Income tax</b>   |                                    | 240,000             | 222,230             |
|   |                                    | \$ 1,092,220        | \$ 919,970          |
| <b>Total Assests</b>  |                                    | \$ 4,339,060        | \$ 4,152,500        |
| <b>Liabilities and Owner's Equity</b>                         |                                    |                     |                     |
| <b>Current Liabilities</b>                                    |                                    |                     |                     |
| Accounts payable  |                                    | 190,000             | 180,060             |
| Short-term loans  |                                    | 300,000             | 100,000             |
| Income taxes payable  |                                    | 260,000             | 242,310             |
| Accrued salaries and wages                                    |                                    | 107,000             | 813,310             |
| Current portion of long-term debt                             |                                    | 100,000             | 163,160             |
|   | <i>Total current liabilities</i>   | \$ 957,000          | \$ 1,498,840        |
| <b>Long-Term Liabilities</b>                                  |                                    |                     |                     |
| Long-term debt  |                                    | 444,120             | 400,000             |
| Deferred income tax   |                                    | 12,800              | 12,511              |
|   | <i>Total long-term liabilities</i> | \$ 456,920          | \$ 412,511          |
| <b>Owner's Equity</b>   |                                    |                     |                     |
| Owner's investment  |                                    | 5,000,000           | 4,500,000           |
| Retained earnings   |                                    | 2,750,000           | 2,600,000           |
|   | <i>Total owner's equity</i>        | \$ 7,750,000        | \$ 7,100,000        |
| <b>Total Liabilities and Owner's Equity</b>                   |                                    | <b>\$ 9,163,920</b> | <b>\$ 9,011,351</b> |
| <b>Common Financial Ratios</b>                                |                                    |                     |                     |
| <b>Debt Ratio</b> (Total Liabilities / Total Assets)          |                                    | 0.33                | 0.46                |
| <b>Current Ratio</b> (Current Assets / Current Liabilities)   |                                    | 0.29                | 0.46                |
| <b>Working Capital</b> (Current Assets - Current Liabilities) |                                    | 2,289,840           | 1,733,690           |
| <b>Assets-to-Equity Ratio</b> (Total Assets / Owner's Equity) |                                    | 0.47                | 0.46                |

## Exit Strategy

Our exit strategy is liquidation and business closure. If our product fails to capture the market, we will sell our existing assets and divide them equally among the partners and shareholders of the company and finally shut down the company.