

# Patient and facilities management system for Singapore Medical Centre



## SINGAPORE MEDICAL CENTRE:

Singapore Medical Centre is an independent hospital based in Lahore which specialises in areas such as ophthalmology, dentistry, gastroenterology, diabetes, heart and general medicine.

Equipped with state of art operation theatres and accommodation, SMC also offers its equipment and facilities to other hospitals and medical centre in the region.

## The Challenge:

Singapore Medical Centre was looking for a patient and facilities management system which needed to be custom built to deal with eye treatments and surgeries. The system needed to be integrated with inventory management and accounting systems.

With 2 operation theatres, 20 rooms, 7 resident doctors, 100 patients per day and 20 surgeries per week, SMC is a busy practice. SMC needed a reliable system that could withstand the daily throughput, was easy to use and technically robust to support multi user interaction.

According to Faisal Shams, Operations Manager, "We looked at many hospital and clinic management systems on the market but none of them could deliver the functionality that we were after. It was apparent to us that a bespoke solution was required. SMC's problems were, who will develop the solution? Could they deliver what they promised? Could they meet our budget?"

High level software requirements included the following:

- Patient registrations
- Patient record management
- Appointment scheduling
- Eye examination and diagnosis
- Pharmacy inventory management
- Facilities management
- Reporting
- Secure multi user access

*“Tabaq Software was proactive in working with our front office and in interviewing technical staff. The way they collected requirements, interviewed staff and documented the requirements, it gave us the satisfaction that we are dealing with the right company and they can deliver it”*

*says Mrs. Samira Tahir,  
SMC CEO.*

While the medical centre housed doctors with different specialisations, the centre excelled in eye treatment and surgery and hence needed an eye examination and treatment system that was customised for this area. This was yet another challenge.

## **The Solution:**

There was no doubt that the effort required here was to understand how the hospital business worked. Tabaq had to quickly understand the medical terms, understand the eye examination processes and apply our modelling techniques to document the requirements. Microsoft Visual Basic, Microsoft SQL Server and Crystal Reports were selected to develop the various modules.

The most challenging part of the system was understanding the eye examination and treatment process. The solution that was developed now allows SMC to record the examination, diagnosis and treatment details separately for each eye. With business rules and conditions defined behind the process, the system allows doctors to match the treatment to the diagnosis and prevents doctors from prescribing incorrect medication or treatment. The examiners can pull up past patient records as required and take notes throughout the entire patient pathway.

## **The Result:**

*“Overall, the system has helped us in reducing the time from the patient’s first appointment to receiving treatment in full”, says Dr. Rizwan Zafar.*

SMC has been using the system for the past ten years. Over this period the system has withstood the test of time and is now a daily part of SMC operations. Thousands of patient records are maintained in the system which can be pulled up quickly when required. The integrated patient registration, appointment scheduling and facilities management application has allowed the management to reduce the time it takes for a patient to receive treatment.

## About Tabaq Software:

Tabaq Software Limited is an information technology and software development company. Our aim is to provide IT solutions to companies in today's highly competitive and regulated environment. At Tabaq Software, we believe in designing and developing innovative and technologically advanced software that also integrate well with our client's existing solutions. This helps our customers transform their companies into efficient and productive organisations and makes their investments more viable.

Founded in 1984, Tabaq formed a software development company in the late 90s to support internal IT needs. After about ten years, Tabaq Software has clients in banking and finance, healthcare, hospitality, pharmaceutical and public sectors.

We take pride in our highly skilled team of software developers who have expertise in SOA, Java, JEE, JME, JSE, AJAX, Microsoft .Net, My SQL, Oracle, JBoss, IBM WebSphere to name a few. Operating out of a dedicated development centre based in Lahore, we believe in truly reducing costs and risks for our customers.

We have experience in application development, re-engineering, integration, mobile application, web 2.0 and CMS, delivered either through standard licensing or as Software as a Service.

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