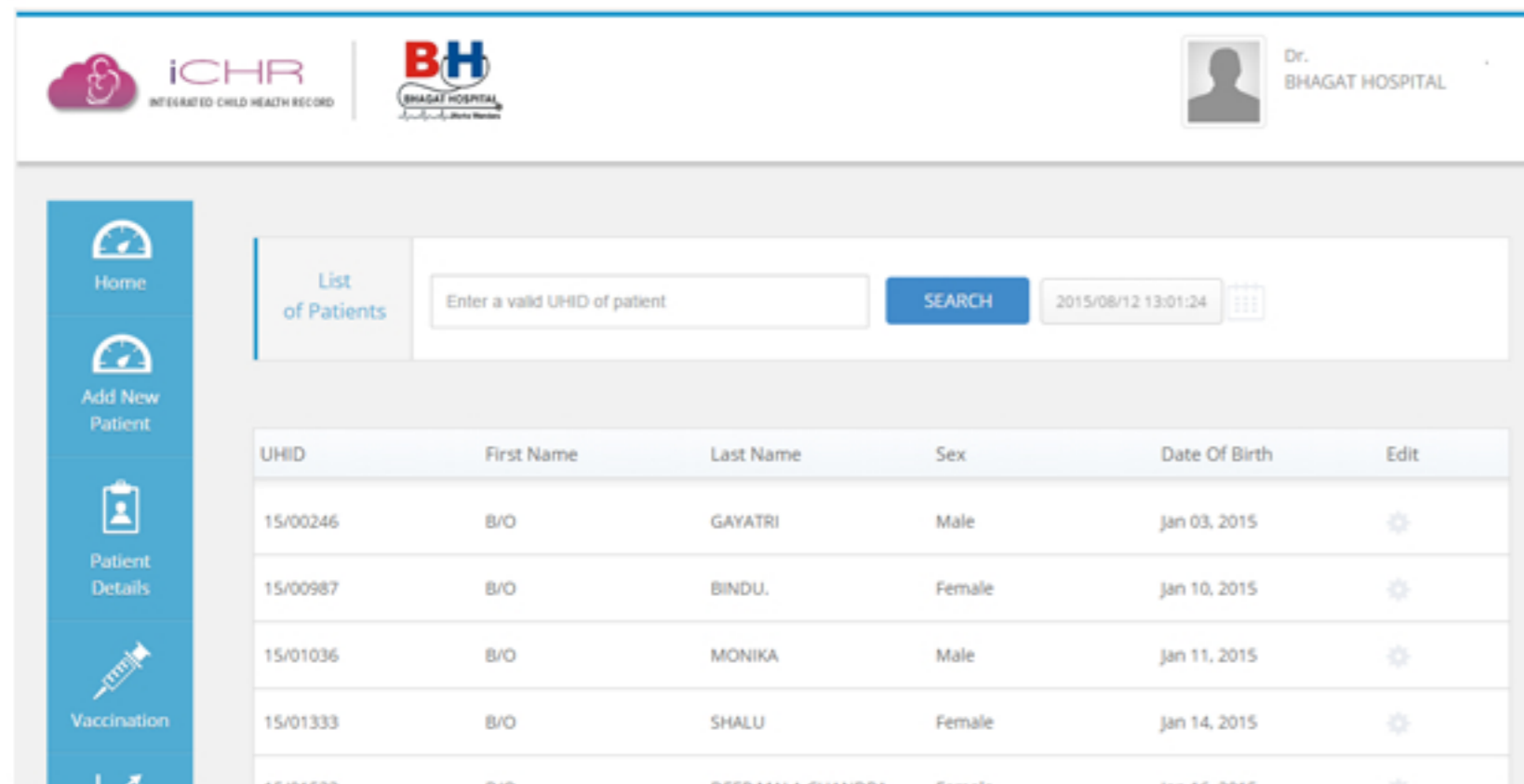




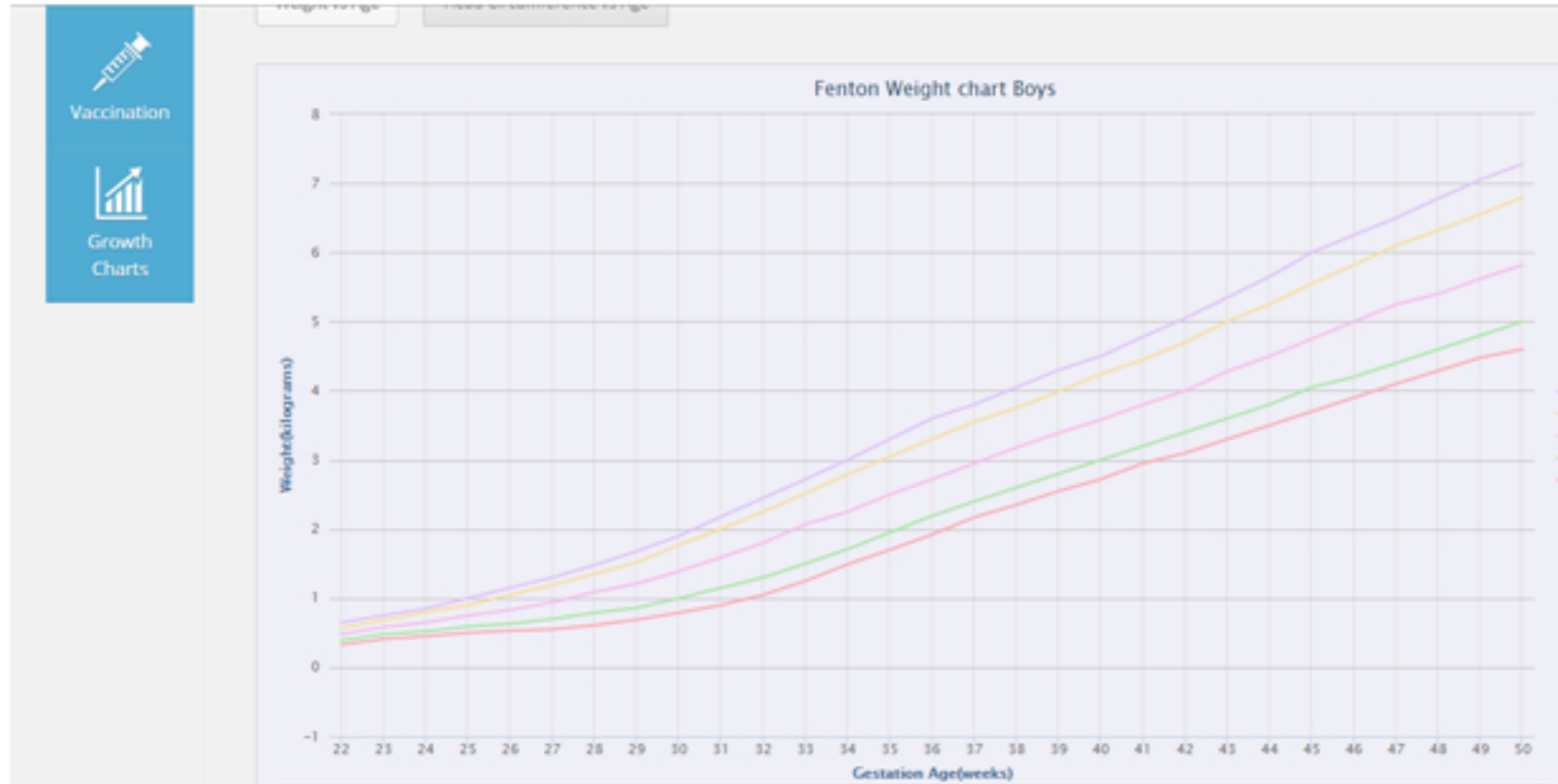
CLOUD BASED CHILD HEALTH RECORD APP INTEGRATING DIVERSIFIED MEDICAL PROVIDERS DATA IN INDIA



ZK in Healthcare through iCHR

Vaccination plays a very integral part in establishing a bonding between parent/child and the doctor/hospital, not only in the first few years of life but often till adolescence. Maintaining a record of vaccinations for life is extremely important as it not only gives parents constant assurance about their child's health but is also now an important document for school admissions and for visa purposes.

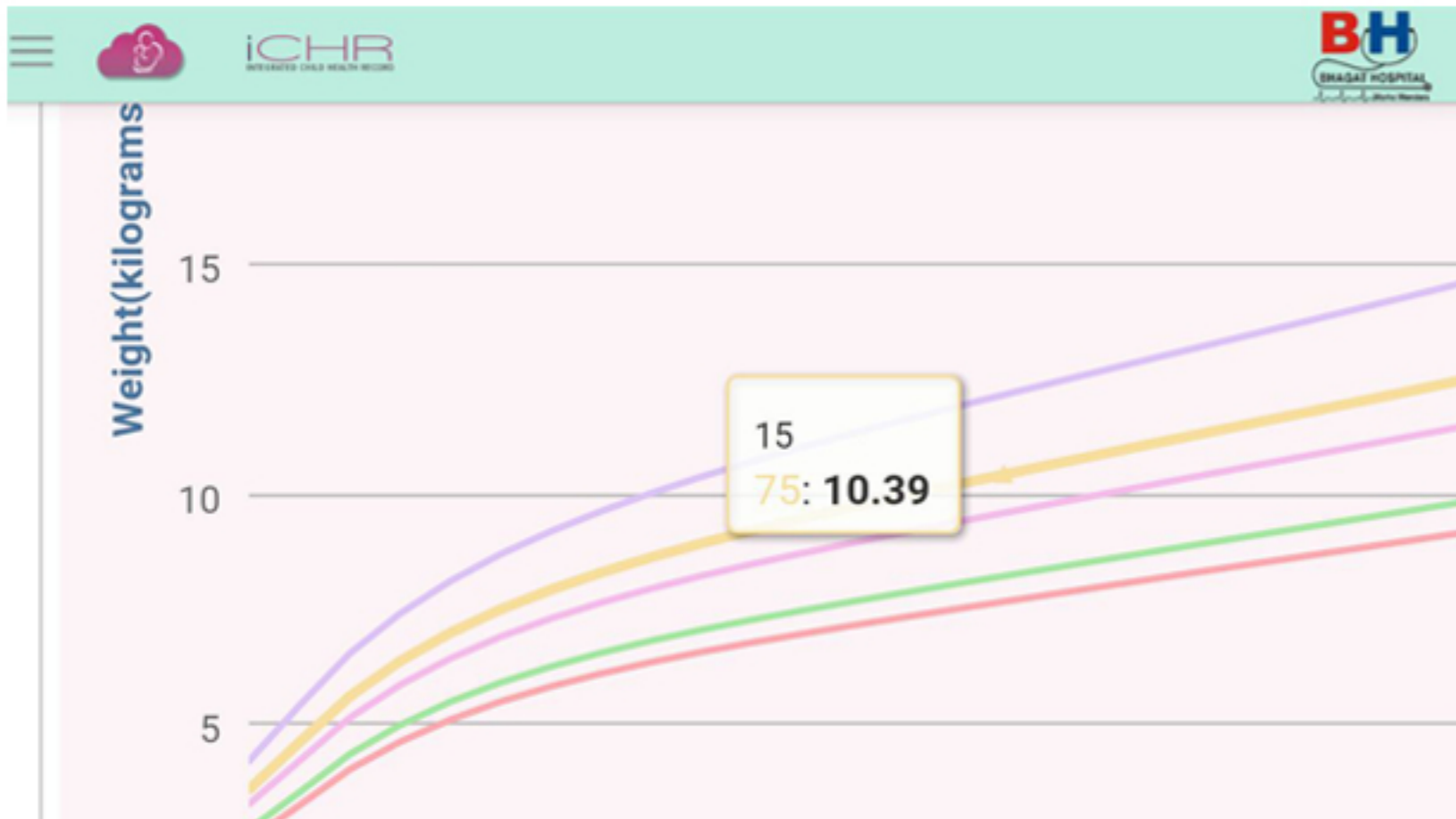
Integrated Child Health Record(iCHR) is a unique web application which acts as an effective tool for providing parents with a mobile interface to closely measure and monitor their child's health. It also provides an elaborate computer interface to hospitals for maintaining, tracking and keeping a record of their vaccination records and growth charts for their future references and viewing. Protecting the child's health and ensuring proper nutrition and growth is the single most important goal of iCHR. The app is available in both android and iOS platform.



CHALLENGES FACED

As our endeavour has been to develop an enhanced structure which can entail both what we look for in a technology- the simplicity of the task, meaning web development and design can be simple and at the same time aesthetically rich- as well as an Application Programme Interface which offers system developers unsurpassed power and programming flexibility.

We at Oxyent Technologies Ltd., are a small team of efficient people working towards attaining a common goal, that of developing high quality and user friendly products. During our search for an apt open source framework that can provide us with flexible platforms for enhancing further development, we came across **ZK** which fulfills all of our requirements.



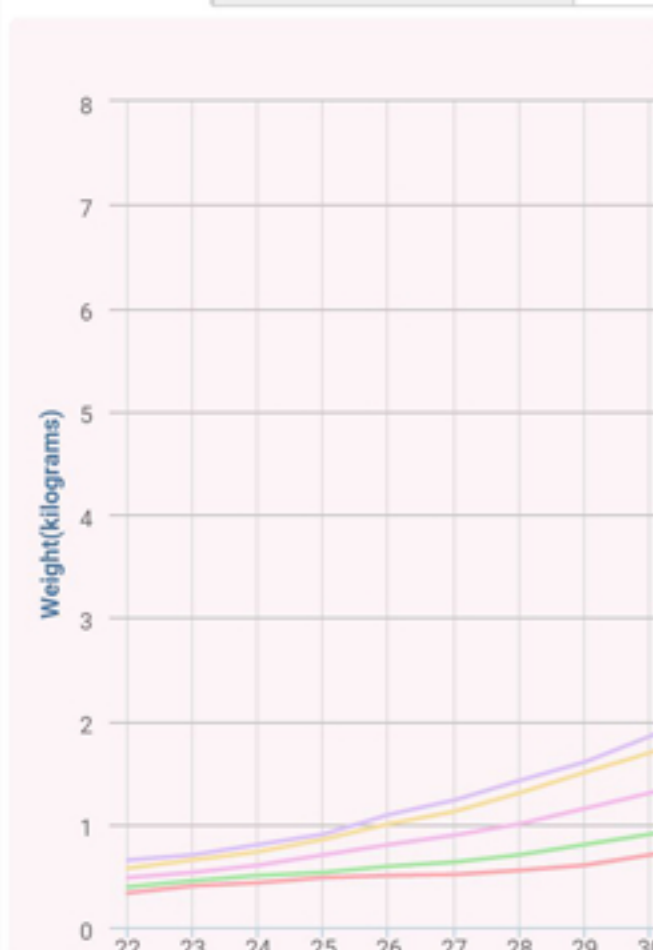
ZK IN iCHR

ZK has helped us in Web development with a clean implementation of the Model-View-Controller design pattern while providing a productive and component-centric design. Using ZK we have developed a rich user interface for our application based on Oxyent's Enterprise Information Bus. Our solution involves complete integrations across EMR (Electronic Medical Records) across Hospitals via HL7 and multitenant design for each customer. Based on the incoming patient, we personalize the user interface, database and model layer and allow multiple tenants to coexist on AWS cloud environment.



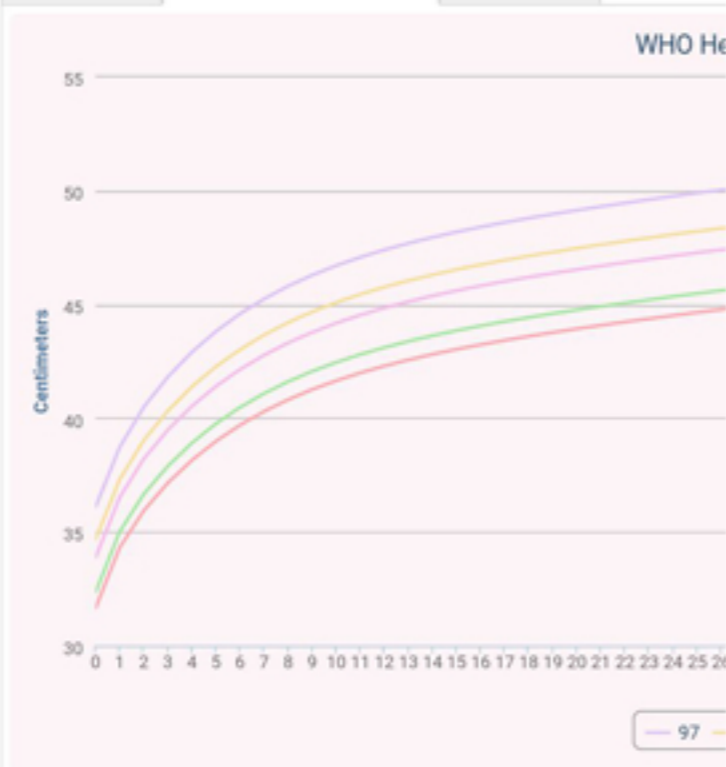
Growth Chart Fenton

Weight vs Age Head circumference vs Age



Growth Chart WHO

Weight vs Age Head circumference vs Age Length vs Age



Growth charts (Fenton and WHO) are one of the major and critical elements in iCHR. Based on prematurity of the child, we calculate Fenton centile and interpolate the weights as per population data available in knowledge base. This allows parents and doctor to help their child meet his or her growth requirements. ZK Charts' flexibility and various options have helped us in focusing more on the medical domain and relying on ZK's AJAX client to manage data interactions.

At this level of development we are now connecting with different hospitals and parents across the country. The increasing number of downloads of android as well as iOS app makes it clear that iCHR is being appreciated and used by people across borders. ZK has helped us in catering to the demand of implementing our application in different hospitals with proper integration, branding and personalization, and without having to make any major changes in the code.