ALTEN Calsoft Labs designed and developed the gene library & mutation viewer for the client. The solution includes:

- Mutation viewer depends on gene library, which imports the curate data residing in an excel sheet into the oracle database. The main goal of gene library application is to get rid of excel sheet dependency in future.
- Mutation viewer presents the cured mutation data in a more meaningful & graphical manner.
- Mutations happening in a gene are plotted against the longest DNA or Protein sequence in the form of histogram for substitution mutation.
- Filter option enables to view the mutation data in a more focused manner.
- Substitution mutations are plotted neatly in a distribution pie chart.
- Clicking on the mutation provides a detailed info of the mutation.

The TECHNOLOGY USED includes:

- Application Server: JBoss 4
- Java Technologies: J2EE, Spring, JSP, JSTL, Servlets, Dom4j, Apache POI
- RDBMS: Oracle 10g
- IDE: Spring source Tool Suite (STS) - Eclipse
- UI Framework: Flex 4.5
- UI Scripting: JavaScript, XHTML, CSS

**THE CLIENT**

The customer is considered as the founder of the Bio-Tech industry and a pioneer in using human genetic information to discover, develop and manufacture medicines to treat patients with critical illness.

**BUSINESS NEED**

The customer envisaged to develop a web based interactive mutation viewer with a high-performance visualization tool for exploration of large, integrated genomic data sets and various biotechnology research data.

- The proposed system has to interface with the curated and standard genomic data sets available in various formats.
- Scalability, Usability and performance of the application due to the large genomic data set.

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