

NCC

# PURPOSE

- ▶ Developing a user-friendly genomic data visualization tool with the ability to explore, interrogate, analyse, interpret, and evolve hypotheses for expert geneticists and discovery scientists requires careful planning and consideration of various aspects.

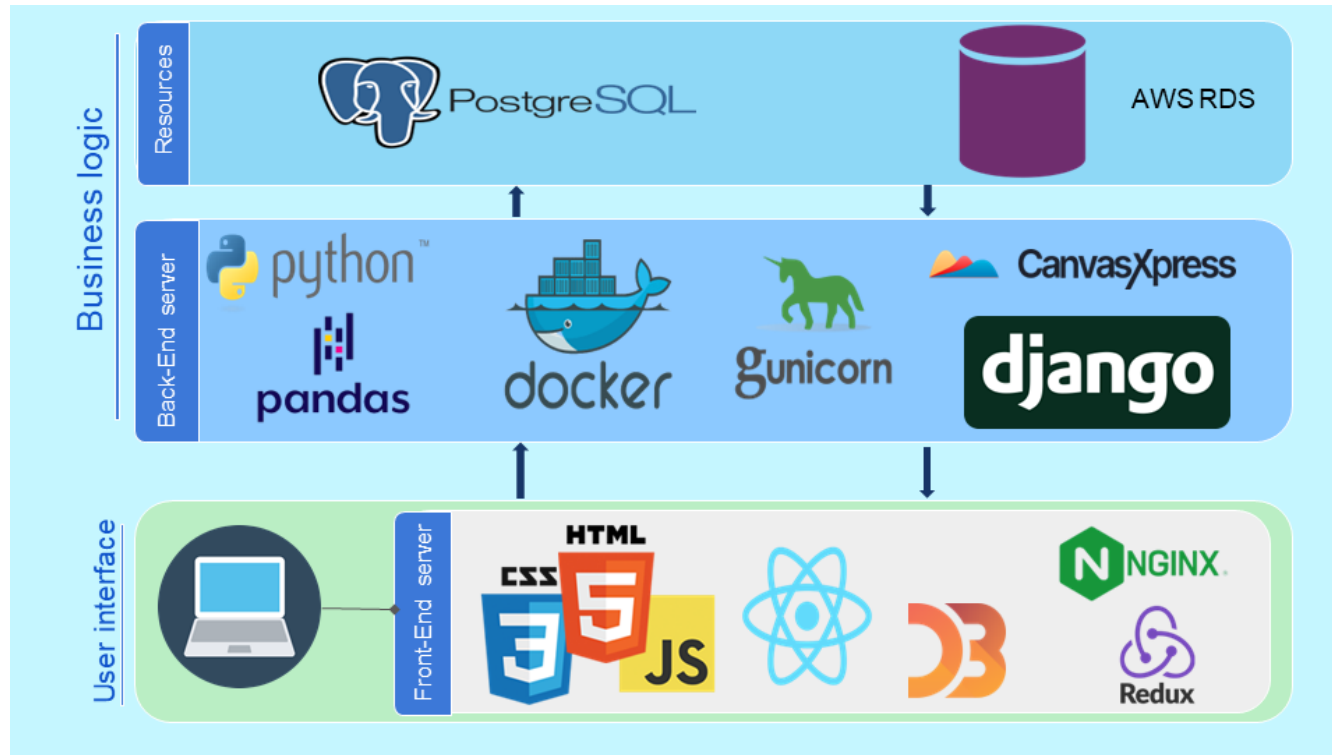
# CLIENT

- ▶ National Cancer Center(NCC)
- ▶ South korea

# 3BIGS Approach

- ▶ The Gene Visualization tool is a web-based analysis portal that provides visualizations of cancer genomic data, and it is a sub-service portal of the National Cancer Data Cancer website. Analyze single data or multi-omics data in relation to clinical data, provides drug relation information and you can download the visualization results

# 3BIGS Approach



# SOFTWARE SERVICES

- **User Interface Development:** Design and develop a user-friendly interface for NCC, ensuring intuitive navigation, efficient data retrieval, and seamless utilization of the database's features and functionalities. Focus on creating a responsive and visually appealing interface that enhances the user experience.
- **Database Access and User Management:** Develop and provide software services that allow users to access and navigate the NCC, including member registration, login functionality, and personalized user profiles. This service ensures secure and controlled access to the database's resources.
- **API Development and Integration:** Build and maintain an application programming interface (API) for NCC, enabling users to integrate its functionalities into their own software applications. This service allows users to leverage NCC's genetic analysis tools and data within their existing research or surveillance systems.

# SOFTWARE SERVICES

- **Data Visualization and Interpretation:** Develop software services that enable users to visualize and interpret the results of genetic analysis performed within NCC. This may involve generating interactive visualizations, such as circos plot, onco print, heatmaps, cnv, fusion, survival plot, lollipop plot, box plot or sankey charts, to aid in understanding and communicating complex genetic information effectively.
- **Reporting and Exporting:** Provide software services that allow users to generate comprehensive reports summarizing their genetic analysis results within NCC. Enable customizable report templates and exporting options to different file formats (e.g., PDF, Excel, CSV), ensuring flexibility and ease of interpretation for researchers, healthcare professionals.
- **Training and Support:** Offer training materials, tutorials, and documentation to assist users in effectively utilizing NCC and its software services. Provide dedicated customer support channels, such as email, live chat, or a ticketing system, to address user queries, troubleshoot technical issues, and guide users in maximizing the benefits of NCC.

# SOFTWARE SERVICES

- ▶ **Continuous Improvement and Updates:** Regularly update and improve the software services provided with NCC based on user feedback, emerging research needs, and technological advancements. This includes incorporating new analysis tools, enhancing performance and security, and ensuring compatibility with evolving data formats and standards.



# RESULTS

Contents

- **Variant Summary**: visualize summary information of major variant types
- **Lollipop Plot**: visualize mutation or phosphorylation of certain gene on a sequence
- **CNV Plot**: visualize copy number variation data on integrated genome viewer
- **Heatmap**: represent genomic/proteomic data in the form of a map or diagram in which data values are represented as colors/heats
- **Circos plot**: visualize one of the seven omics data as a circular layer on a circular chromosome map
- **Box Plot (Tumor vs Normal)**: visualize the genetic information statistics of the selected genes in the form of boxes
- **Survival Plot**: visualize the recurrence/survival probability of patients according to clinical variable conditions

Data Type	Variant Summary	Lollipop	CNV Plot	Heatmap	Circos Plot	Box Plot	Survival Plot
Clinical Information							○
Dna Mutation	○	○			○		
RNA				○	○	○	
Proteome				○	○	○	
CNV			○		○		
Methylation				○	○		
Phosphorylation		○		○			
Fusion					○		

# RESULTS

Introduction Visualize Example Data Visualize MyData Customer Service

Home > Single Data Visualization

### Single Data Visualization

 <b>Circos</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.	 <b>Lollipop</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.	 <b>ON</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.
 <b>Heatmap</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.	 <b>Box</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.	 <b>Variant-Summary</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.
 <b>Survival</b> Provides a visualization analysis service that can be implemented according to the uploaded user data.		

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### Single Data Visualization

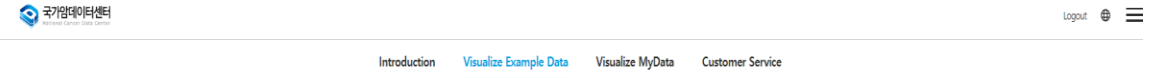
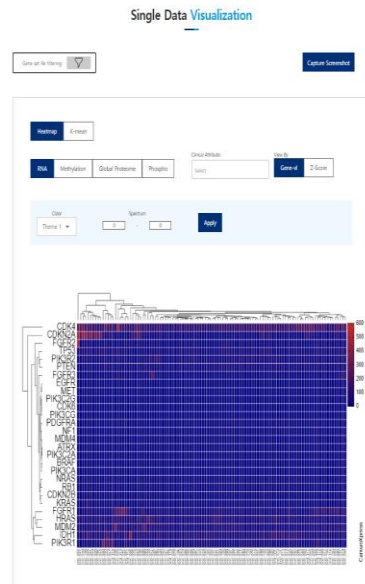
Save on file-format

Choose a Sample (126)

circ\_001 Pathological image (1) Timeline Report

Capture Screenshot

# RESULTS



RESULTS

**THANK YOU**