The Business Model Canvas

Designed for:	Designed by:	Date:	Version:
Drug–Target Binding Affinity Prediction System	Computer Science Students – SUT	Week 12 – 2025	v1.0

Key Partnerships

- Academic research institutions
- Pharmaceutical research labs
- Open bioinformatics databases (BindingDB, DrugBank)
- University supervisors and innovation center

Key Activities

- Data collection and preprocessing
- Drug and protein representation
- Training ML / DL models
- Binding affinity prediction
- Model evaluation and validation

Key Resources

- Public bioactivity datasets
- Machine learning frameworks
- Computing resources (CPU/GPU)
- Research expertise

Value Propositions

- Faster drug discovery process
- Reduced experimental cost· Accurate prediction of binding affinity
- Scalable virtual screening
- Supports drug design and optimization

Customer Relationships

- Research collaboration
- Academic usage
- Technical documentation support

Channels

- Research publications
- University platforms
- Internal research tools

Customer Segments

- Pharmaceutical companies
- Biotechnology companies
- Academic researchers
- Drug discovery scientists

Cost Structure

- Computational resources
- Data preprocessing effort
- Research and development time

Revenue Streams

- Cost savings in drug discovery
- Research tool licensing
- Academic and non-commercial usage