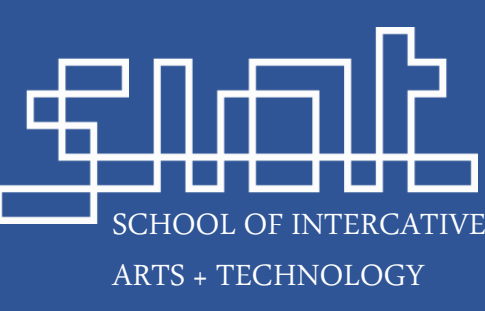# A computational framework for Acute Myocardial Infarction Prediction from Real World Data

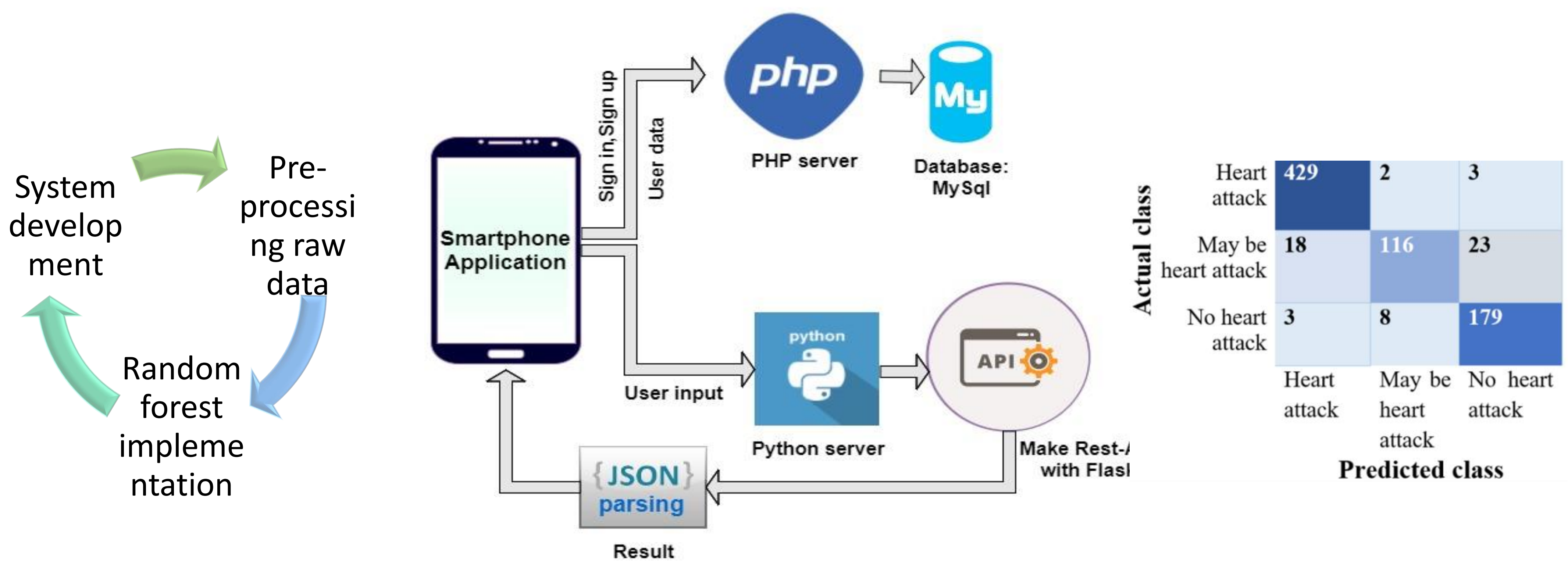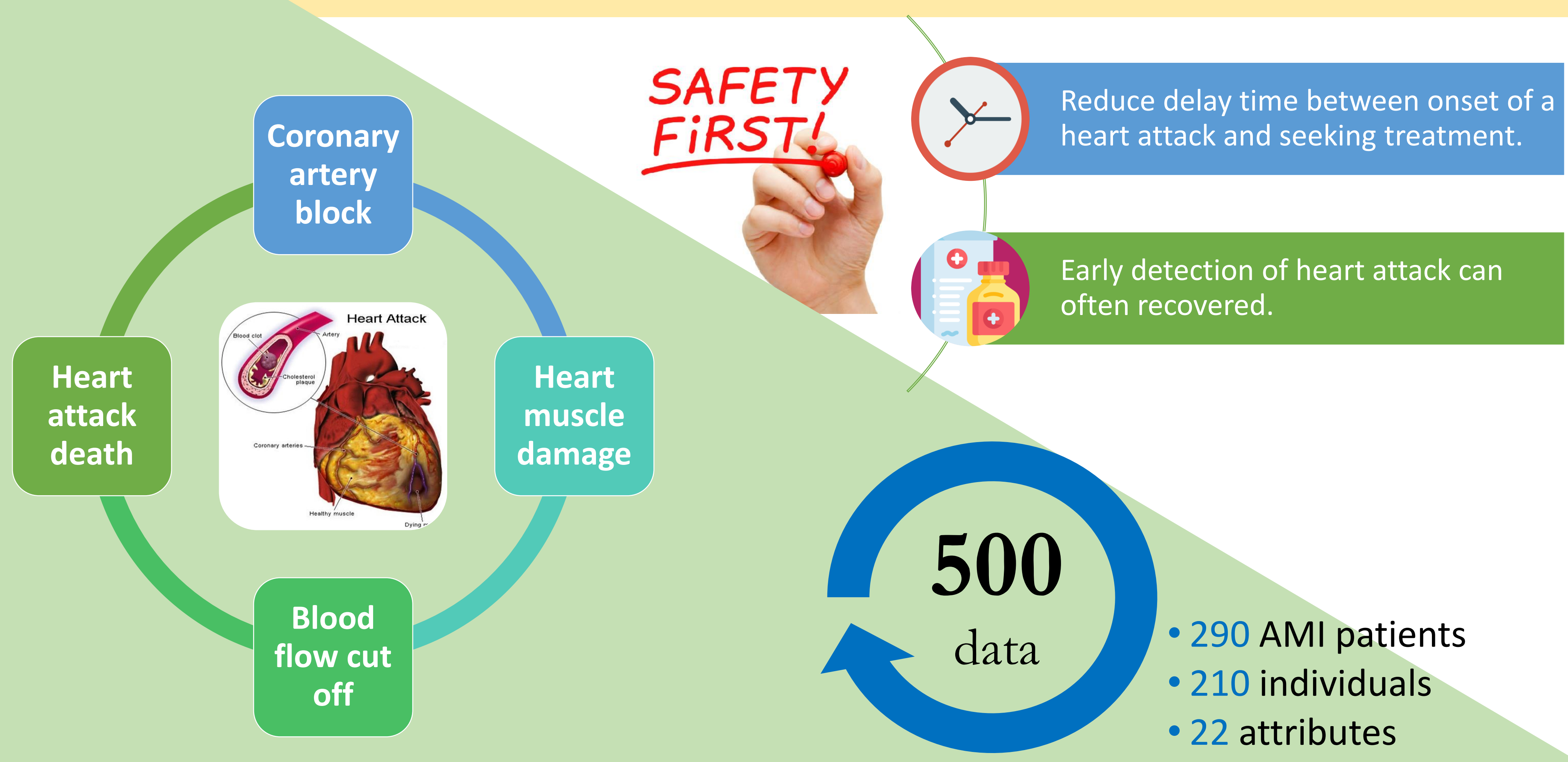**SFU**

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iVizLab
EXPRESSION BASED INTELLIGENT VISUALS AND VISUALIZATION LAB

ACUTE MYOCARDIAL INFARCTION (AMI)

commonly known as **Heart Attack** occurs when there is a sudden, complete blockage of a coronary artery that supplies blood to an area of the heart.

Coronary artery block

Heart attack death

Heart muscle damage

Blood flow cut off

SAFETY FiRST!

Reduce delay time between onset of a heart attack and seeking treatment.

Early detection of heart attack can often recovered.

500 data

- 290 AMI patients
- 210 individuals
- 22 attributes

System development

Pre-processing raw data

Random forest implementation

Sign in,Sign up
User data

Smartphone Application

php
PHP server

My
Database: MySql

python
Python server

User input

API
Make Rest-/ with Flasl

{JSON} parsing
Result

	Heart attack	May be heart attack	No heart attack
Heart attack	429	2	3
May be heart attack	18	116	23
No heart attack	3	8	179

Actual class / Predicted class

Interactive Environment
User friendly smartphone application .

Cost Efficient
Completely free service, cost efficient

Real Life Data
Unlike some existing solution real life data with maximum attribute

References

Nag, P., Mondal, S., & More, A. A Holistic User Centric Acute Myocardial Infarction Predic-tion System With Model Evaluation Using Data Mining Tech-niques
Nag, P., Mondal, S., Ahmed, F., More, A., & Raihan, M. (2017, December). A simple acute myocardial infarction (Heart Attack) prediction system using clinical data and data mining techniques. In *2017 20th International Conference of Computer and Information Technology (ICCIT)* (pp. 1-6). IEEE..

About Me:

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