**Lab 6**

**Multiclass classification**

**Drug prediction for patient**

Problem:

This dataset contains information about drug classification based on patient general information and its diagnosis. Machine learning model is needed in order **to predict the outcome of the drugs type** that might be suitable for the patient.

Dataset Features:

|  |  |  |
| --- | --- | --- |
| **Variable Name** | **Description** | **Sample Data** |
| **Age** | Patient Age | 23; 47; ... |
| **Sex** | Gender of patient(male or female) | F; M; ... |
| **BP** | Levels of blood pressure(high, normal, or low) | HIGH; NORMAL; LOW; ... |
| **Cholesterol** | Levels of cholesterol(high or normal) | 1.4; 1.3; ... |
| **Na\_to\_K** | Sodium to potassium ratio in blood | 25.355; 13.093; ... |
| **Drug** | Type of drug | DrugY; drugC; ... |

Dataset:

<https://drive.google.com/file/d/1__aGic2knie3eE7uWwUjyUJjSl7NgI5_/view?usp=share_link>

Exercise:

**Find best suitable for given dataset which has low bais and low variance (include ensemble models also)**