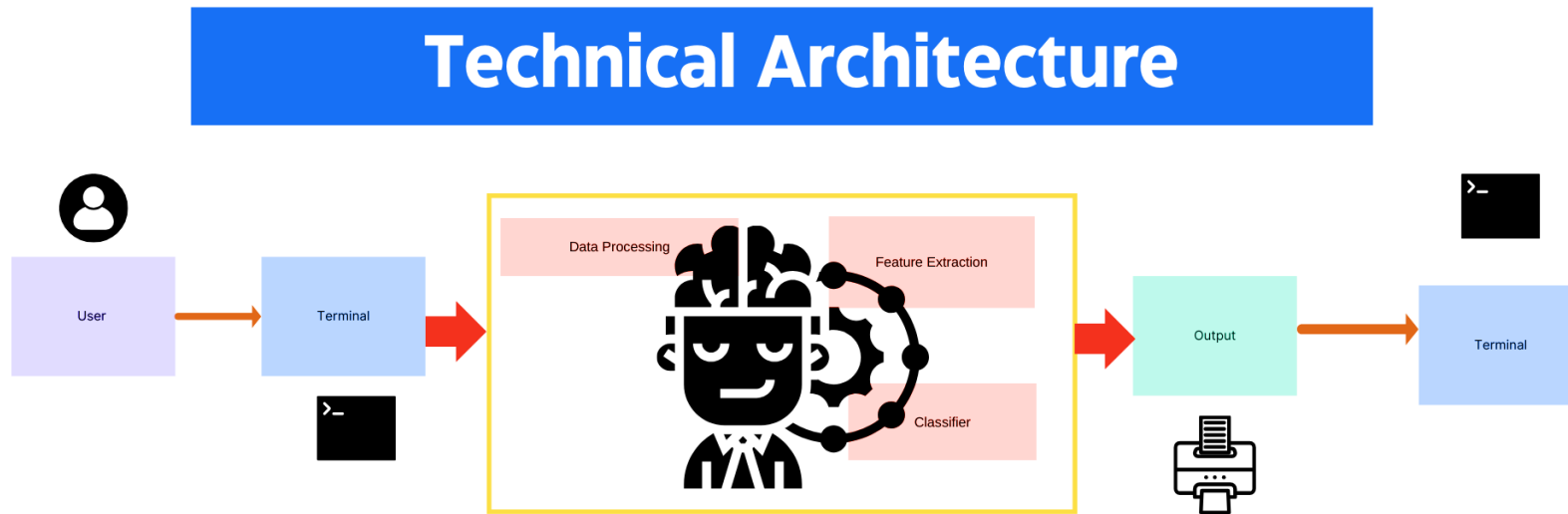


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	30 <sup>th</sup> October 2023
Team ID	2.4
Project Name	Malware Detection and Classification
Maximum Marks	4 Marks

### Technical Architecture:



**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	Graphical Interface for User	Any terminal from any operating system
2.	Machine Learning Model	Model used and tested	Decision tree, Random Forest
3.	Programming Language	Language used for building this project	Python
4.	Resources and Library	Libraries and resources used for building model and visualization	Pandas, NumPy, Pickle, Pefile, Scikit Learn, Joblib, OS, Seaboon, matplotlib
5.	Deployment	Resource used for deployment	All operating System using terminal
6.	Collaboration	Version Control and Project collaboration	Git and GitHub/Gitlab

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	GitHub/Gitlab
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	-
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	-

S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Cloning the Git, available for all
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	-

#### References:

<https://ieeexplore.ieee.org/document/9249150>

<https://www.semanticscholar.org/paper/Static-Analysis-of-Executables-for-Collaborative-on-Kong-Parizi/80e9ec1250fdd2e7c1d2f227b2fb6d98c31cd0f0>

<https://arxiv.org/abs/1704.04679>

<https://scikit-learn.org/stable/modules/ensemble.html#random-forests>

<https://scikit-learn.org/stable/modules/ensemble.html#random-forests>