

Project Design Phase- II Technology Architecture

Date	24 September 2022
TeamID	PNT2022TMID09607
ProjectName	Detecting Parkinson's Disease Using Machine Learning

Technical Architecture:

The deliverables shall include the technological stack as well as the required details in both the tables.

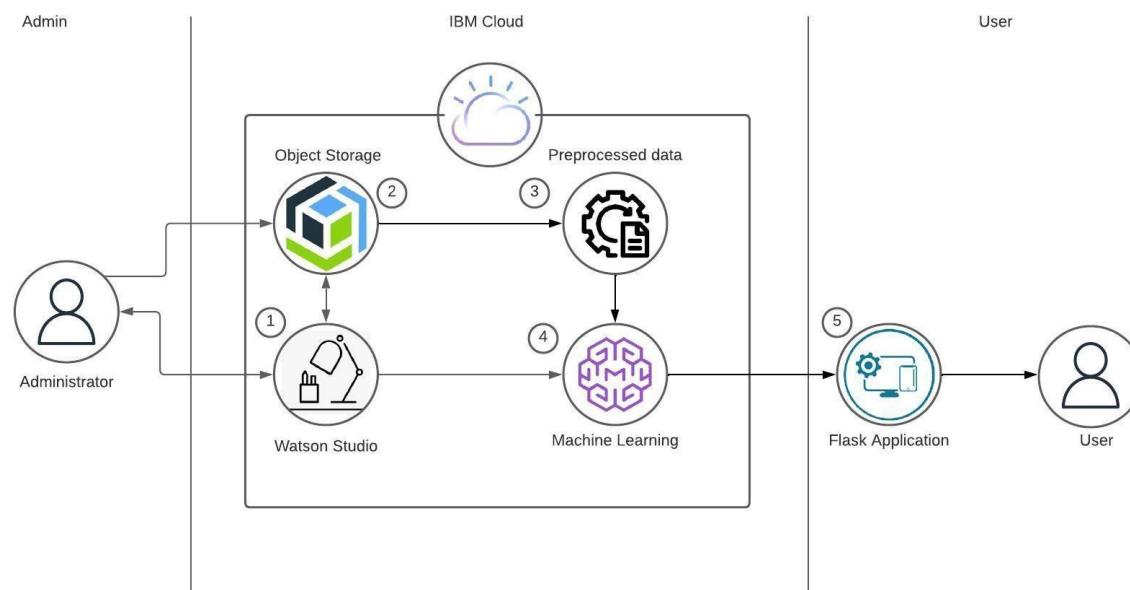


Table-1:Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	How the user interacts with the application e.g. WebUI	HTML,CSS,Pythonflask.
2.	ApplicationLogic-1	Register and Login page	HTML,CSS,Pythonflask.
3.	ApplicationLogic-2	HomePage	HTML,CSS.
4.	ApplicationLogic-3	Test vital page	HTML,CSS,Pythonflask.
5.	Database	Data Type, Configurations, etc.	MySQL.
6.	Cloud Database	Database Service on Cloud	IBM Database.
7.	File Storage	File Storage requirements	IBM Cloud Object Storage
8.	External API-1	Purpose of External API used in the application	IBMAPIConnect.
9.	External API-2	Purpose of External API used in the application	NIL
10	Machine Learning Model	Train the classification model using the Random forest classification algorithm.	IBM Watson Studio.
11	Infrastructure (Server/Cloud)	Application Deployment on Local System/Cloud.	Local Server Configuration: Local System. Cloud Server Configuration: IBM Watson

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Listtheopen-sourceframeworksused	PythonFlask,JupyterNotebook,Tensorflow, andPythonlibraries.
2.	SecurityImplementations	Listallthesecurity/access controlsimplemented,useoffirewalls,etc.	ThroughPassword,EmailConfirmation.
3.	ScalableArchitecture	Justifythescalabilityofarchitecture(3 –tier,Micro-services)	PythonLibraries.
4.	Availability	Justifytheavailabilityofapplications(e.g.useoffloatingdbalancers,distributed servers,etc.)	IBMWatsonMachineLearning.
5.	Performance	Design Considerations for the performance oftheapplication(numberofrequestspersec,useof Cache,useofCDNs),etc.	Flask.

