

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

TeamID	PNT2022TMID46884
ProjectName	Smart Solution for Railways
MaximumMarks	4Marks

Technology Architecture:

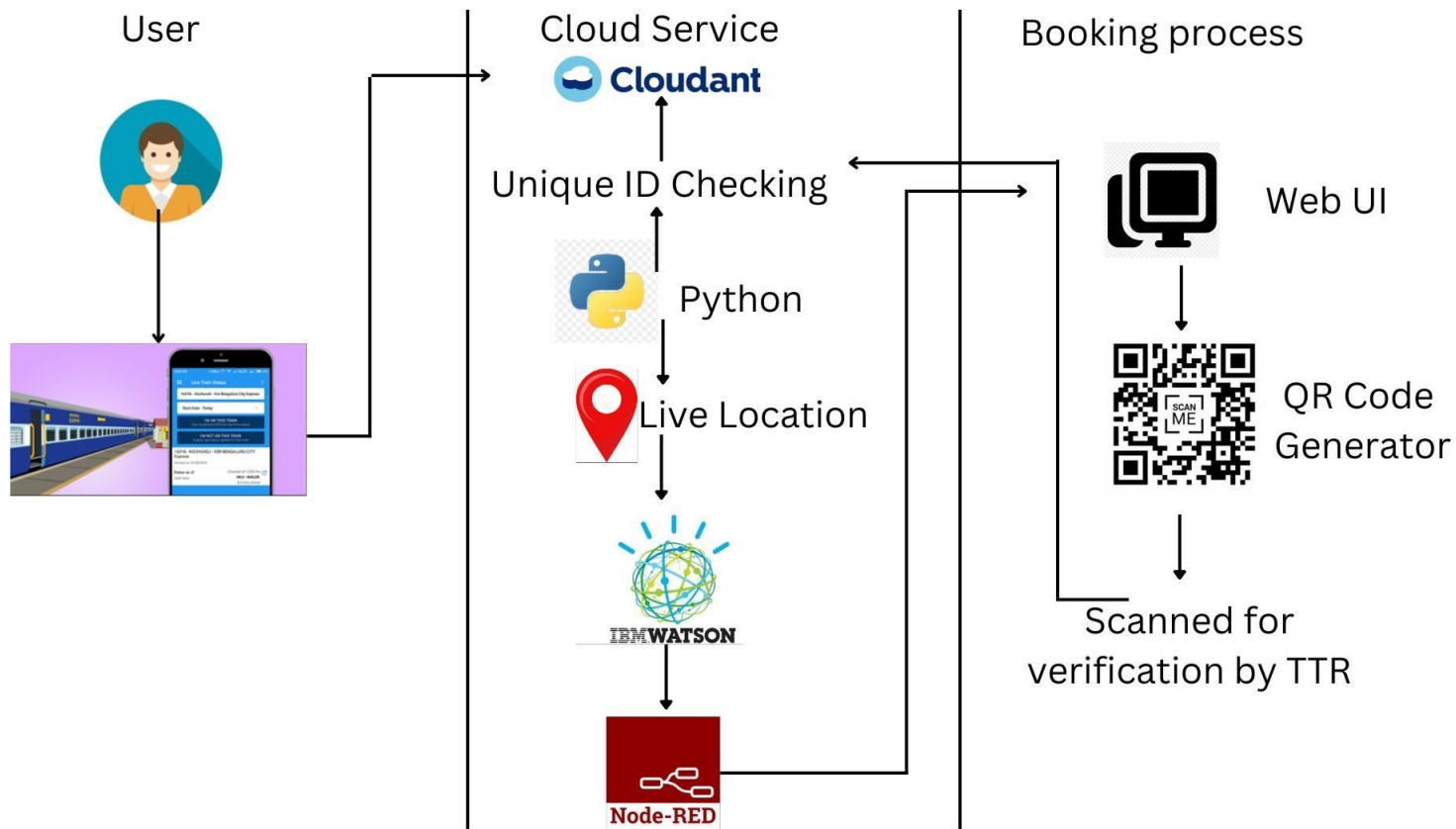


Table-1:Components&Technologies:

S.No	Component	Description	Technology
1.	Web UI	User can login and book their ticket through the website based on the availability of these seats.	HTML,CSS,JavaScript
2.	CloudServices	Requirements filled by the passenger is stored in the cloud database.	Python
3.	GPSTracking	Live Location details shared through the code to share the location in the website	IBM Watson Service
4.	ExternalAPI	Used for rail schedule, ticketing and travel documents generation, cancellation.	Sabre API
6.	DataProcessing	Ticket is verified with the unique ID generated with the cloudant DB	Python, IBM cloud

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	CSS,Backendframework,	Python,IBMcloudantDB
2.	SecurityImplementations	Dataenteredareencrypted,ContinuousLocationTracking	Python,Cloudservice
3.	ScalableArchitecture	The scanner and the codes written are highlyscalablewhereanyimplementationcanbedonea nytimeneeded	Python
4.	Availability	Anytimeavailablesystem.Theticketcanbeverifiedbytheticketcollectorfromanywhere.	IBMLoadBalancer
5.	Performance	Though the details are get stored in the cloud thesystem crash will not affect the data. The data canbe retrieved from anywhere with a scanner. And theGPSstatestheexactlocationofthetrain.	DistributedServices,GPSTracker