IBM SMART INTERNZ – PROJECT BASED LEARNING 2022SMARTSOLUTIONFORRAILWAYS

**TEAM ID: PNT2022TMID15168**

TEAM MEMBERS: Jothikrishna K,Ashwin M, Kabil S, Mohamed Hanish A

**PROJECTOBJECTIVE:**

SmartSolutionsforrailwaysisdesignedtoreducedtheworkloadoftheuserandalsotheuse ofpaper.

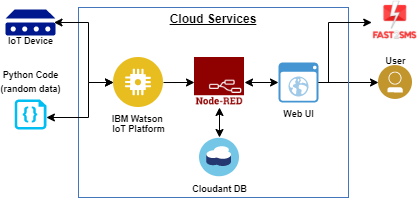
# PROJECTFEATURES:

* AWebpageisdesignedforthepublicwheretheycanbookticketsbyseeingtheavailable seats.
* Afterbookingthetrain,thepersonwillgetaQRcodewhichhastobeshowntotheTicketCollectorwhileboardingthetrain.
* TheticketcollectorscanscantheQRcodetoidentifythepersonaldetails.
* AGPSmoduleispresentinthetraintotrackit.Thelivestatusofthejourneyisupdatedin theWeb appcontinuously
* AllthebookingdetailsofthecustomerswillbestoredinthedatabasewithauniqueIDandtheycan be retrievedbackwhentheTicket Collector scansthe QRCode

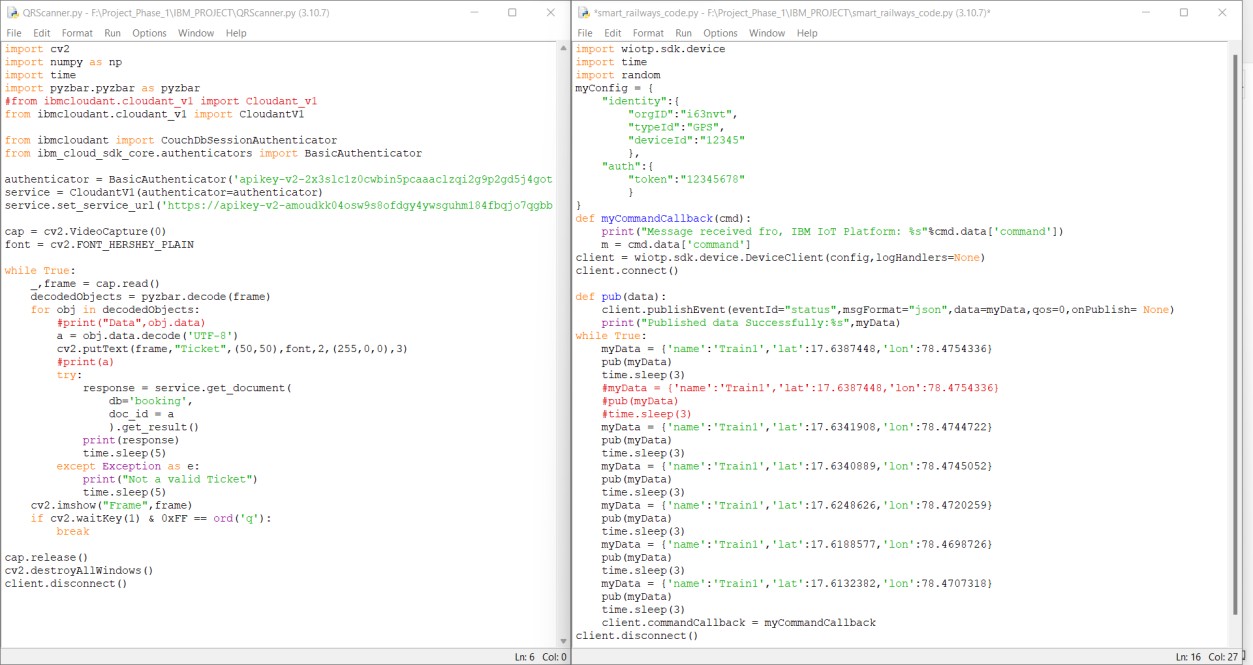
# TOOLSREQUIRED:

* Python
* IBMCloud
* Node-RED,
* IoTPlatform
* MITAppInventor
* IBMCloudantDB

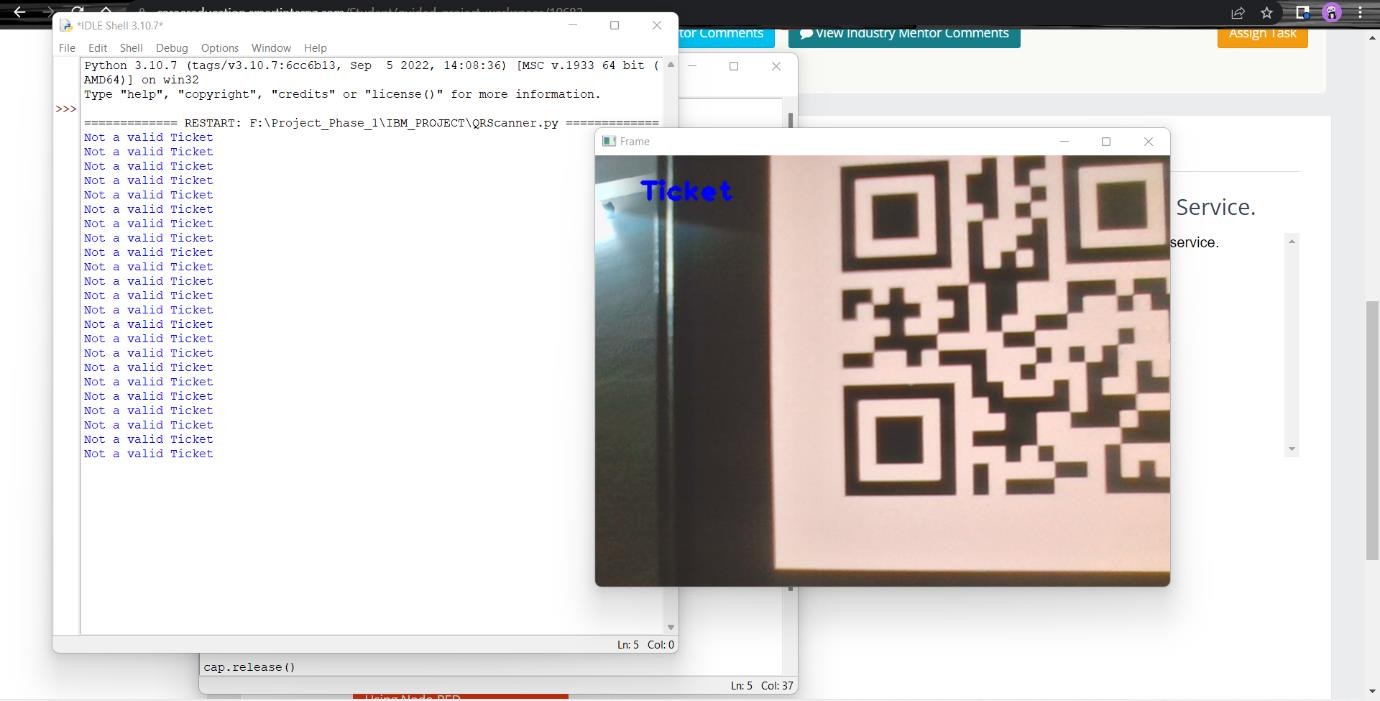
# TECHNICALARCHITECTURE:



1. **Pythoncodeforsmartrailways:**

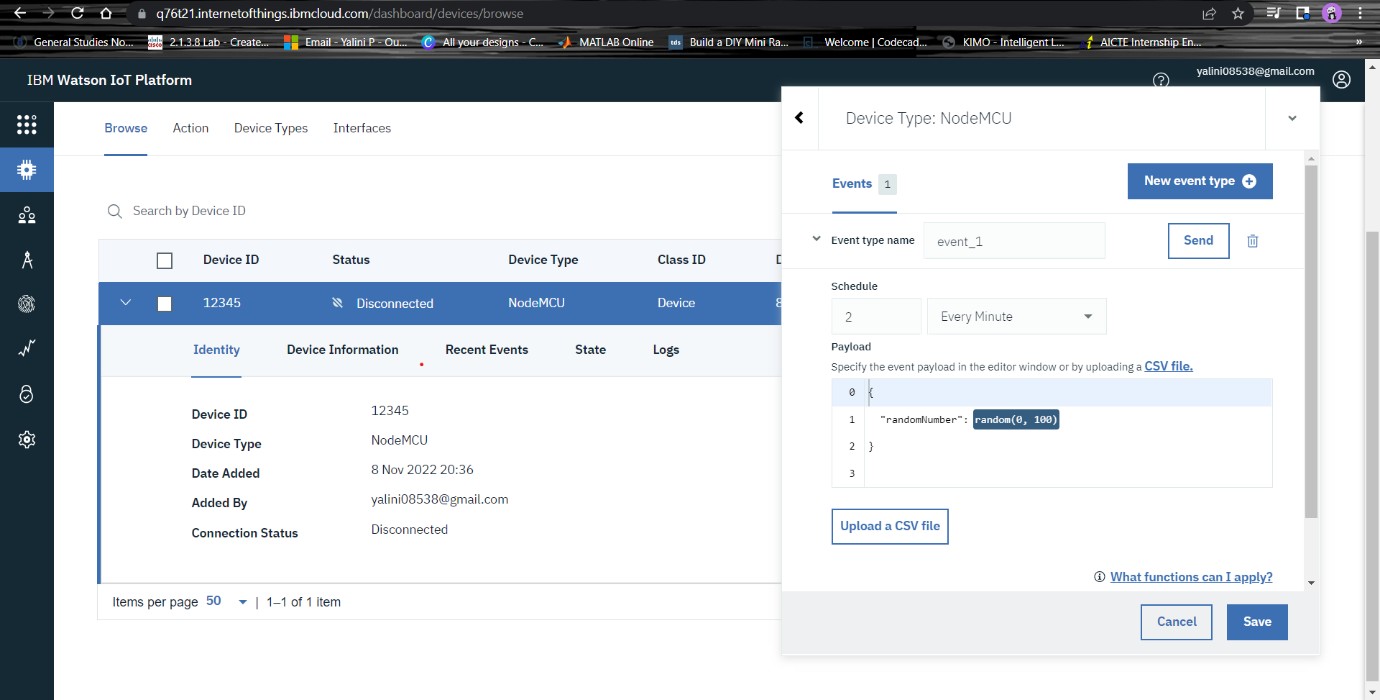


OUTPUT:



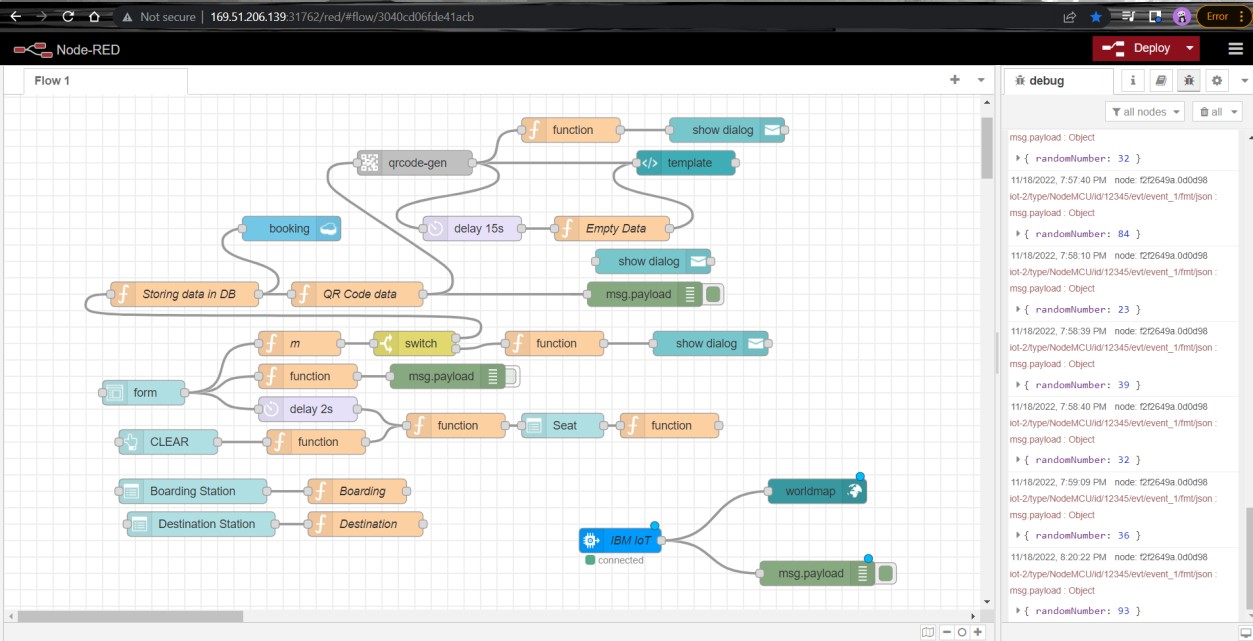
# IBMWATSONIoTPLATFORM:

* + A Node MCU device has been created through IBM Watson IoT platform ,using Kubernetes.
  + Device ID, Token, Authentication details are given and generatedautomaticallyinthePlatform.

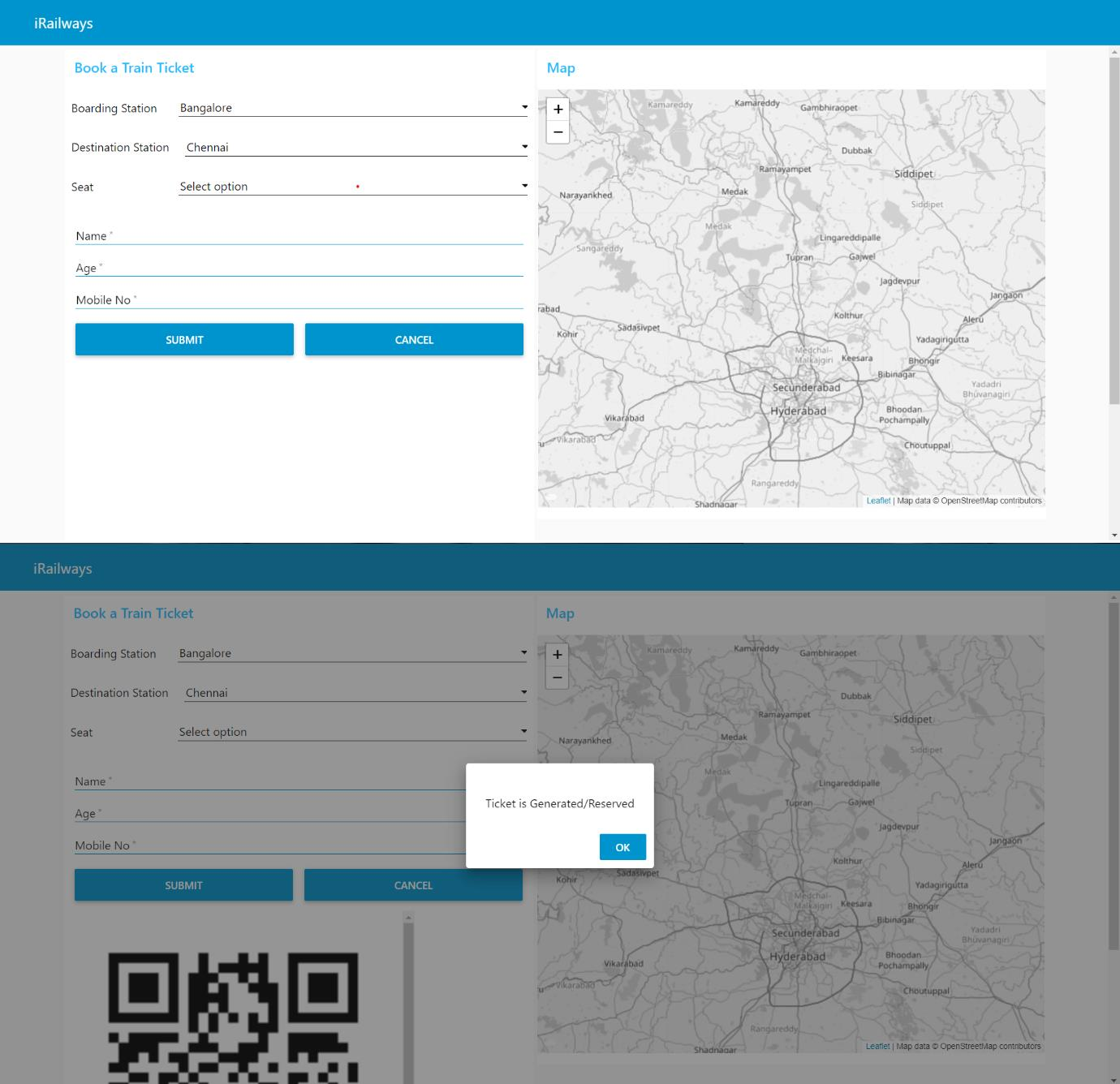


# NODERED SERVICE:

Node red has been created for smart railways and IBM Watson Iot Platform has beenconnectedtoprovideresults.

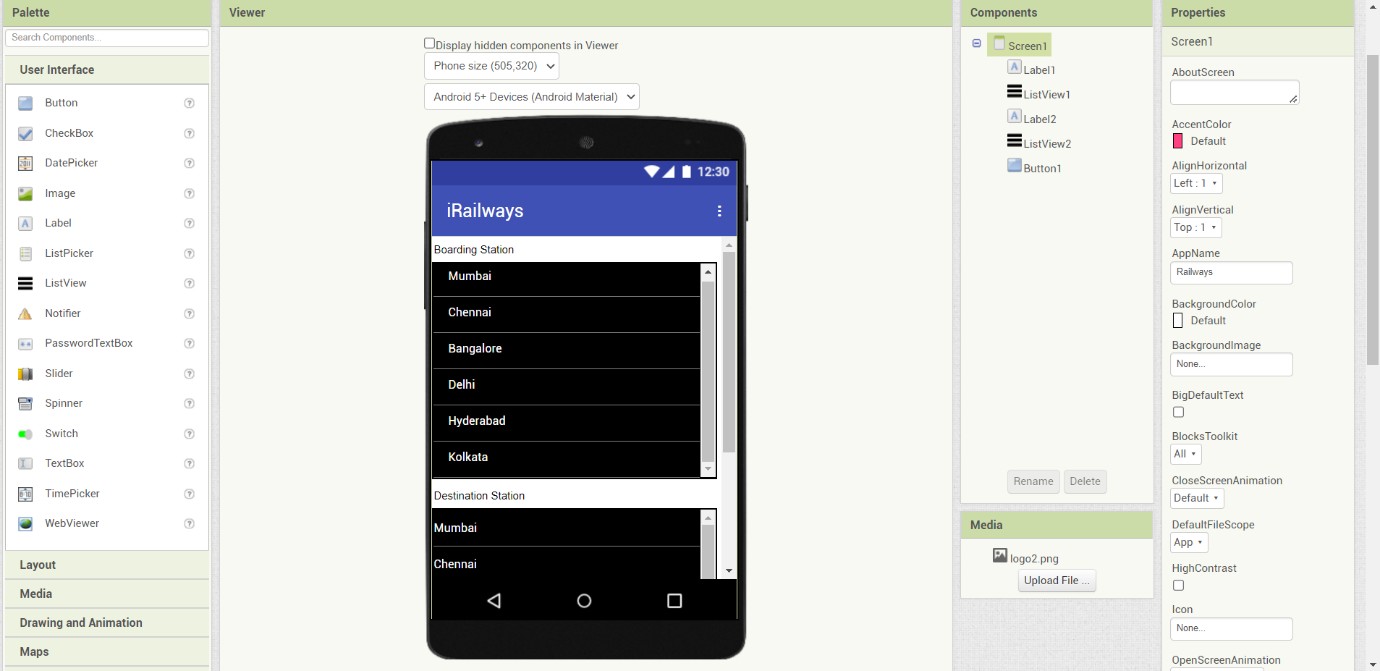


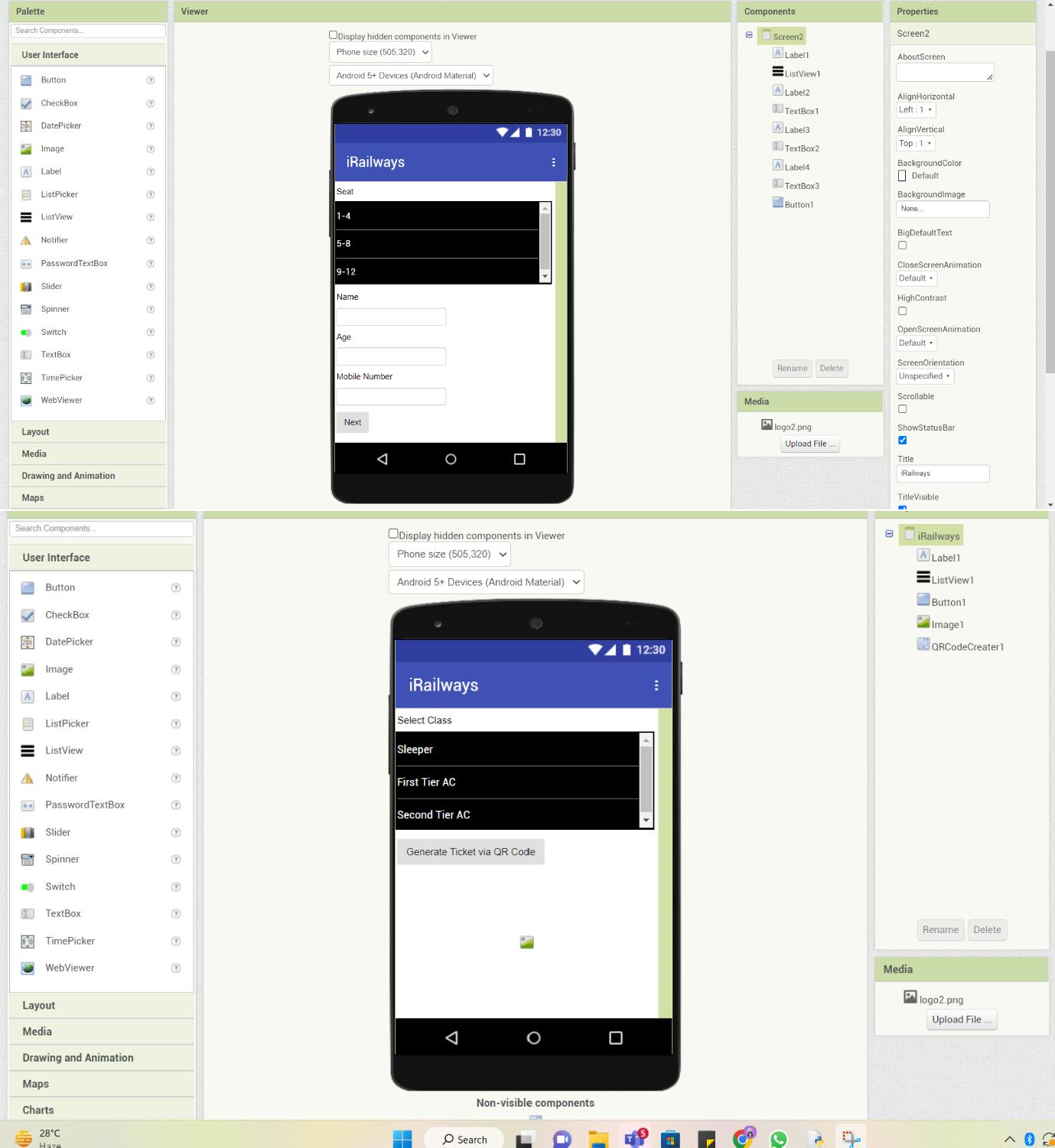
Theweb UIhasbeencreatedinaccordancewiththenoderedflow.

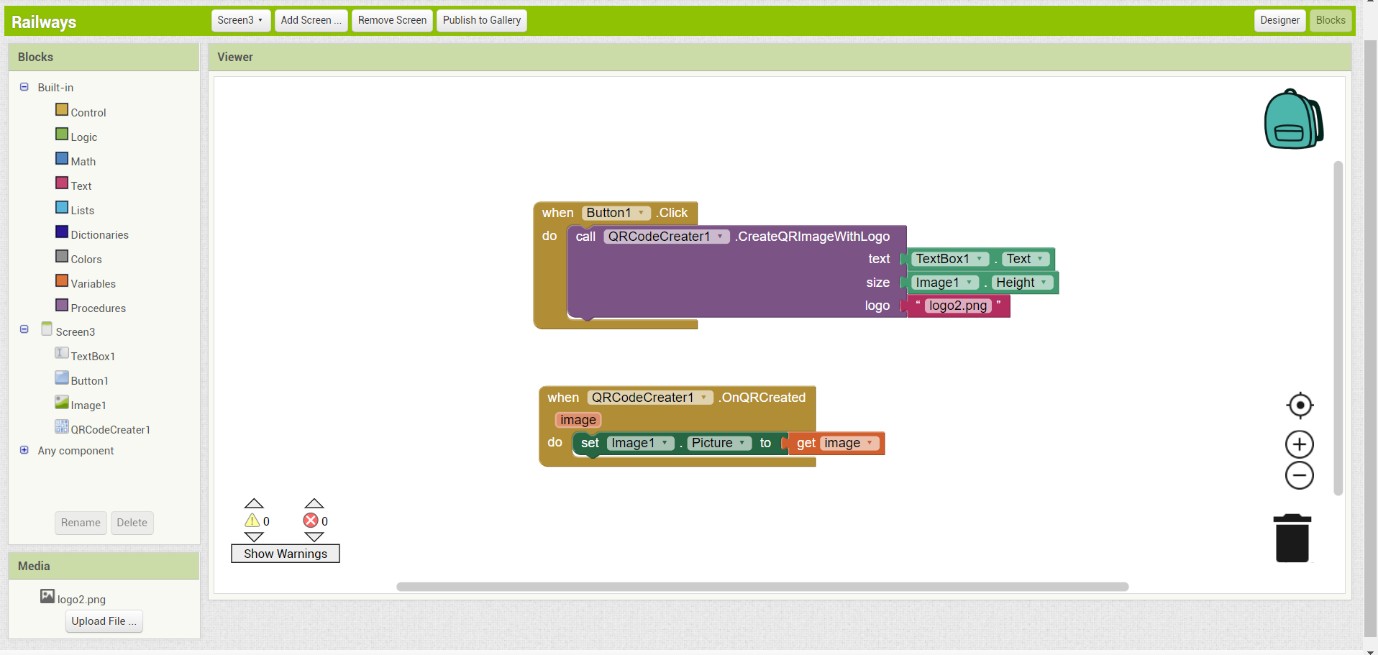


# MITAPPINVENTOR:

ANapplicationhasbeencreatedviaMITAppinventor.







# CONCLUSION:

Thus Smart solutions for Railways has been implemented through IBM services andMIT AppInventor.Thesolutioncouldremainaseasyhandleoneforusers.