Parshvanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY
(Approved by AICTE New Delhi & Govt. of Maharashtra, Affiliated to University of Mumbai)
(Religious Jain Minority)

AI based Infrastructure Administration.

Group No. : 12

Manasi Ghadge(16104019)
Anuja Dhumale(16104034)
Gitika Daki(16104005)

Project Guide : Prof. Apeksha Mohite
Project Co-guide : Prof. Nahid Shaikh

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ABSTRACT

In any organization whether a school or university it is important that the students are edified in a congruous infrastructure. This accounts that the respective infrastructure should consummate all the requisites as essential or required by the students or the faculties.Till date all this process is done manually and is sometimes inclined to commit mistakes. In order to eschew mistakes it is reliable to have a computer availed web-predicated system that will monitor the infrastructure allotment taking into account.

INTRODUCTION

AI based Infrastructure administration is developed for the college to simplify the allotment of practical infrastructure. It fixates on efficient allotment of infrastructure considering software requisites of each infrastructure as well each subject and students capacity of each infrastructure.Allotment is done utilizing an AI based chatbot. Here, AI chatbot will work as a mediator between user and system. It will accept queries from users and will give results. This system will make infrastructure allotment process easy by reducing manual work.

OBJECTIVES

- To provide an efficient and intelligent system for infrastructure allotment.
- To curb the problem of manual labour.
- To overcome with the problem of delay in traditional system.
- To understand user requirements and according allot suitable infrastructure for a particular purpose.
- To suggest swaps incase if any infrastructure is not available in runtime.
- To provide smart solution in less time.

LITERATURE REVIEW

1. Title : Automatic timetable generator.

Authors: Saritha M,Pranav Kiran Vaze.Pradeep,Mahesh N R.

Publication details: International Journal of Advanced Research in Computer Science and Software Engineering, Volume 7, Issue 5, May 2017,ISSN: 2277 128X

Findings: Genetic Algorithm.

Advantages: Generates timetable for each class and teacher, in keeping with the availability calendar of teachers, availability and capacity of physical resources.It is developed to manage all periods automatically.

Disadvantages: It is a messy system as large number of users are logged in.

2.Title: Timetable generation and Leave management system.

Authors: Shashikala K,Shruthi C R,Vinutha N,Roopalakshmi S.

Publication details:ISSN(Online)2394-2320 International Journal of Engineering Research in Computer Science and Engineering (IJERCSE) Vol 5, Issue 6, June 2018

Findings: Scheduling algorithm.

Advantages: Provides leave management for students as well as faculty.

Disadvantages: Paid and costly application and had unwanted additional features.

3. Title: Automatic and effective allocation for examination seats.

Authors: Neelkanth Sharma,Abhishek Mahale,Ashwini Andhale,Yogesh Joshi.

Publication details: International Journal of Engineering Research and Management (IJERM) – Volume 3 Issue 5- May 2017

Findings: Parsing Algorithm.

Advantages: Developed to allot seats for students in which block they are assigned and a notification is send to students as well as faculties.

Disadvantages: Maintenance of database becomes tedious.

4.Title: Timetable Generator.

Authors: Albert Chai Meng Fatt,Chai Wee Kee,Lee Chee heong

Publication details: Prakash School of Computer Engineering Nanyang Technological University Singapore - 639 798.

Findings: Rational Rose CASE tool,UML notation.

Advantages: Generates all combinations of timetable .

Disadvantages: The system was not feasible in universities more than 100 classrooms.

5.Title: Review of integrated applications with AIML based chatbot.

Authors: Md.Shahriare Satu, Md. Hasnat Parvez, Shamim-AI-Mamun

Publication details:1st International Conference on Computer & Information Engineering, 26-27 November,2015.

Findings:AIML

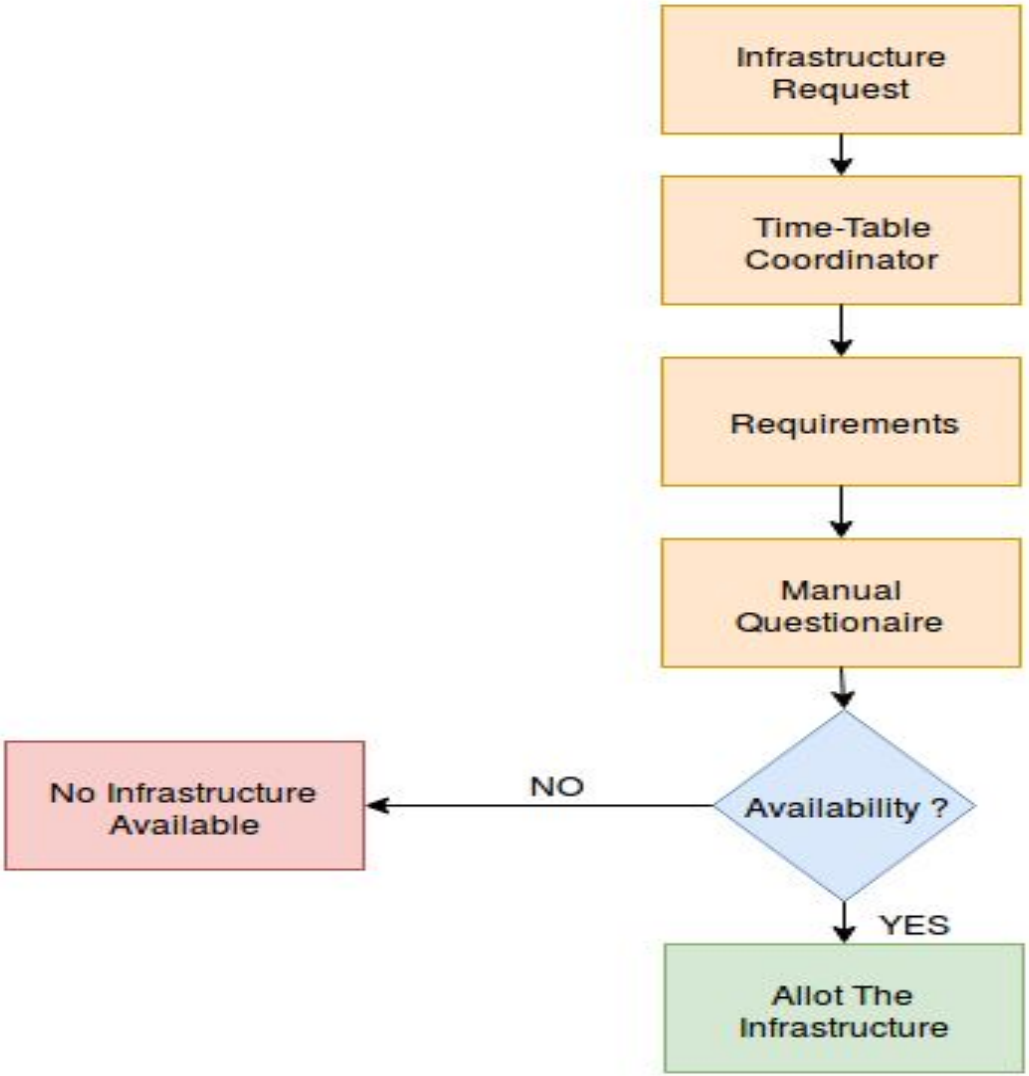
Advantages: Ease of use.

Disadvantages: Cannot be used for large-sized projects.

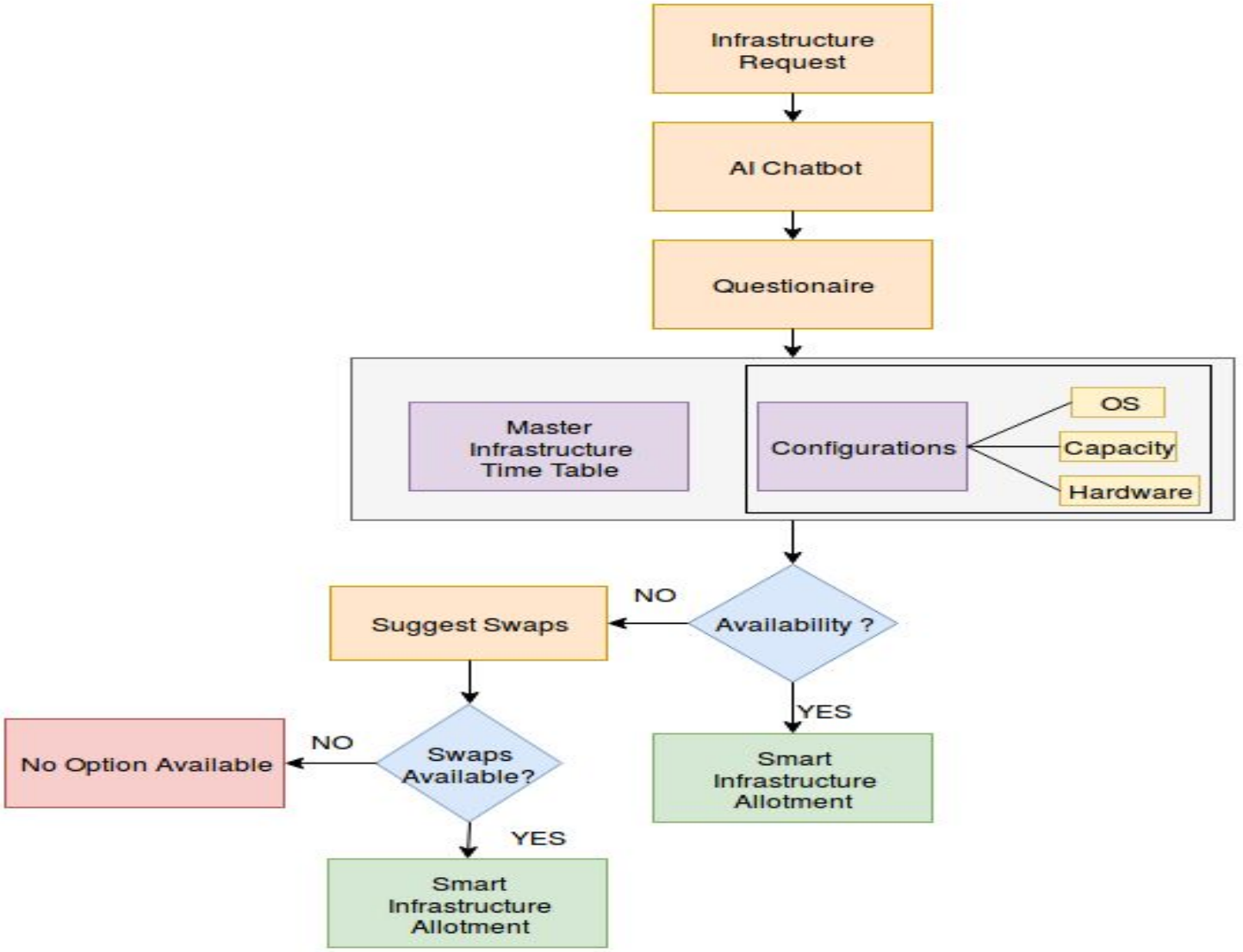
PROBLEM DEFINITION

Commencement of drive or sundry academic programs without any prior information results in shortage or sometimes unavailability of infrastructure resources. This stresses the manpower and engenders a hustle in convention and schedule as manual communication and faculty coordination is involved for making any subtle changes. To overcome with this quandary we will providing a web based application for efficient allotment of infrastructure.‘AI based Infrastructure Administration’ will be integrated with an AI chatbot for utilizer interaction. Our solution will withal provide comfort to the manpower and will evade hamper in academics.

EXISTING SYSTEM WORKING



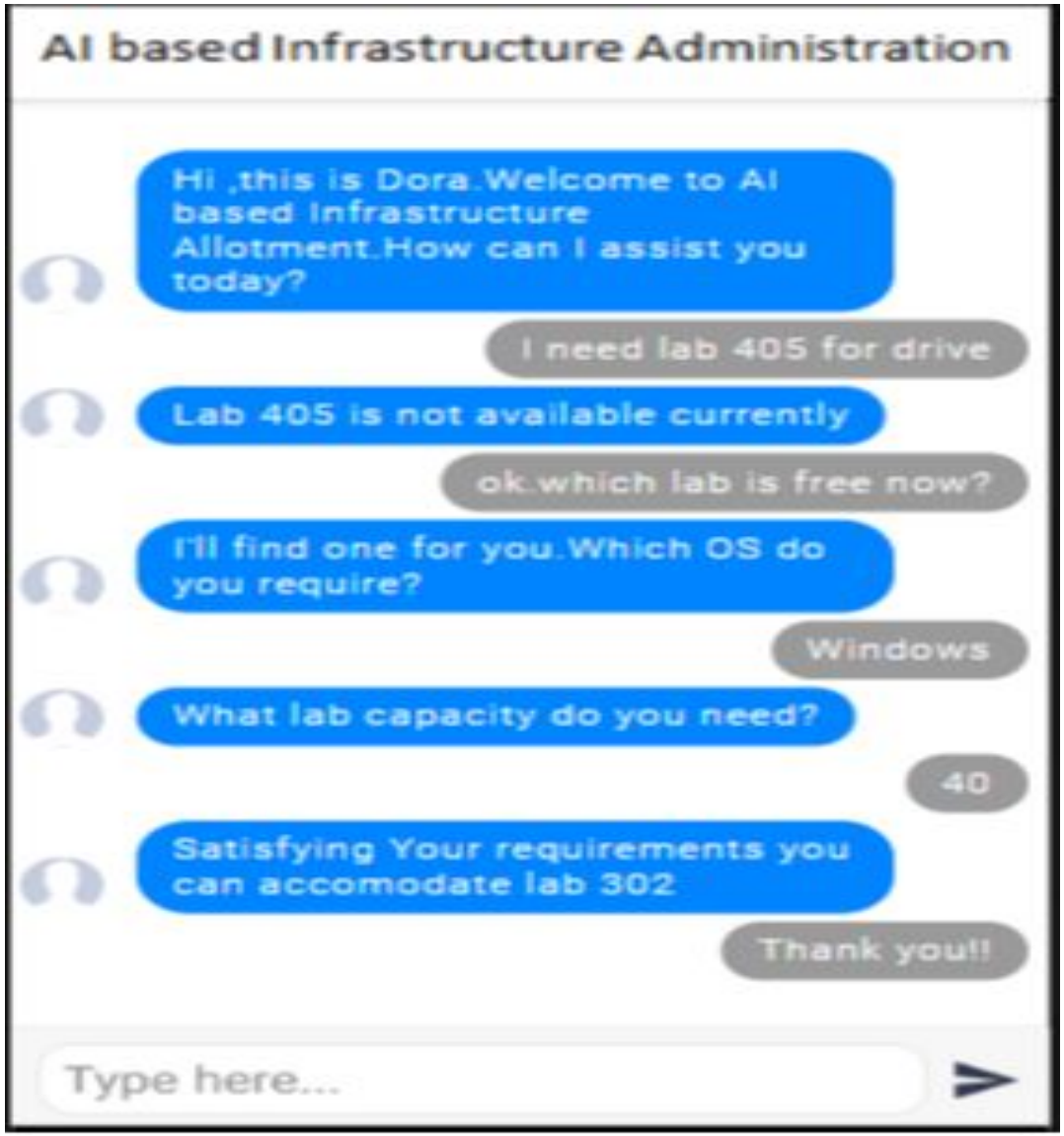
PROPOSED SYSTEM WORKING



MASTER INFRASTRUCTURE TIMETABLE

DEPARTMENT OF INFORMATION TECHNOLOGY											
Lab Time Table											
Time/Day	Lab No.	9.10 - 10.05	10.05 - 11.00	11.00 - 11.55	11.55 - 12.25	12.25 - 1.20	1.20 - 2.15	2.15 – 2.35	2.35- 3.30	3.30 - 4.25	4.25 - 5.20
MONDAY	301	MPL(SF) B3								SDL(RC) B3	
	302	UL(ND) B2								TE APTITUDE CIVIL	
	303										
	308	CSM(NS) B3								TE APTITUDE CIVIL	
	309	SPA(8.40-10.30)A3		SPA(10.50-12.40)F3			SPA(1.10-3.00)B3			SPA(3.00-4.50)C3	
	313	SNMR(GG) B2									
	317								SC(PD)		
	405		SPA DIV E (10.50-12.40)				SPA DIV C 1.10-3			APTITUDE MECH	
	408	FE CAD(8.40-10.30)		ACN (TE-B3)			FE CAD(1.10-3.00)		FE CAD(3.00-4.25)		
	409	BDA(VB) B1		FEA (TE-B3)(11.20-1.10)			FEA (TE-B3)(1.40-3.30)A3			CSDL B2	
	410					TE-EXTC			BE-EXTC		
TUESDAY	301									MPL(SF)	
	302		SC(PD)			BI(AM) B1				BE APTITUDE CIVIL	
	303									BE IT APTITUDE	
	308		STQA(SS)			SNL(PD) B2				APTITUDE CIVIL	
	309	SPA(8.40-10.30)C1		SPA(10.50-12.40)B1		SPA(1.10-3.00)A1				SPA(3.00-4.50)D3	
	313			DBRIS (11.20- 1.10) B2						PL(AA) B2	
	317		AIP(NS)			CSDL B3			AIP(NS)	NL(KD) B3	
	405	MECH PBL				PL(AA)				SPA(3.00-4.50)F	
	408	FE CAD(8.40-10.30)					FE CAD(1.10-3.00)				
	409						FEA (TE-B3)(1.40-3.30)A2			FEA (TE-B2)	
	410					TE-EXTC			BE-EXTC		

CHATBOT INTERACTION WITH USER



TECHNOLOGY STACK

Software Specification:

- Artificial Intelligence for Chatbot.
- Front end for GUI designing of AI based Infrastructure Administration can be developed using HTML5,CSS3,Jquery.
- For the purpose of database storage and data fetching Python 3,MySQL,PHP can be used.

Hardware Specification:

- Processor – Dual Core
- Hard Disk – 50 GB
- Memory – 1GB RAM

SCOPE

- Proposed System will withal provide comfort to the manpower and will evade hamper in academics.
- Provides with an AI Chatbot in runtime of academics.
- It will avail eschew inconsistencies visually perceiving that no lab session is missed due to any reason by providing alternate infrastructure options.
- Additionally features provided like reservation and dynamic allocation due to any activities.

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- Saritha M, Pranav Kiran Vaze, Pradeep, Mahesh N R,on"Automatic Time Table Generator",International Journal of Advanced Research in Computer Science and Software Engineering, Volume 7, Issue 5, May 2017,ISSN: 2277 128X

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- Neelkanth Sharma,Abhishek Mahale,Ashwini Andhale,Yogesh Joshi on "Automatic and Effective Allocation for Examination Seats using Android Application" International Journal of Engineering Research and Management (IJERM) – Volume 3 Issue 5- May 2017

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- Md.Shahriare Satu, Md. Hasnat Parvez, Shamim-AI-Mamun on Review of integrated applications with AIML based chatbot 1st International Conference on Computer & Information Engineering, 26-27 November,2015.

Thank You...!!