ISSUE TRACKING SYSTEM

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ABSTRACT

Issue Tracking System is used to Collect, Resolve, Track and understand the issues in the college. User will be able to report any type of issue in the system.

The reported issues will be directed to the respective In charges. If the issue is not resolved it will be moved to the next authority in charge.

The data which is collected through the app is used to predict and analyze the issues in various dimensions and features for budget prediction.

KEYWORDS: SRS and UML Designs,Xml, Wamp Server(windows,Apache,MySQl,PHP), Android Studio, Tableau.

INTRODUCTION

Music is so important to everyone's life, it brings out so many emotions in us like excitement. Music can change someone's mood, get them productive, the possibilities are endless.

Music Genre Recognition is an important field of research in Music Information Retrieval. A music genre is a conventional category that identifies some pieces of music as belonging to a shared tradition or set of conventions, i.e. it depicts the style of music.Music Genre Recognition involves making use of features such as spectrograms, MFCC's for predicting the genre of music.Here we are going to make use of GTZAN Dataset which is really famous in Music Information Retrieval (MIR). The Dataset comprises 10 genres namely Blues, Classical, Country, Disco, Hip Hop, Jazz, Metal, Pop, Reggae, Rock.Each genre comprises 100 audio files (.wav) of 30 seconds each.The model can learn the genre of the music by listening to the song 4-5 seconds without listening to the complete 30 sec song which takes more time to classify entire songs.We are going to use a Convolutional Neural Network, we need an image as an input, for this we will use the mel spectrograms of audio files and save the spectrograms as an image file.

BACKGROUND

In the institutional setting, issue tracking systems are commonly used in an organization's customer support call center to create, update, and resolve reported customer issues, or even issues reported by that organization's other employees. A support ticket should include vital information for the account involved and the issue encountered.[2] An issue tracking system often also contains a knowledge base containing information on each customer, resolutions to common problems, and other such data.

An issue tracking system is similar to a "bugtracker", and often, a software company will sell both, and some bugtrackers are capable of being used as an issue tracking system, and vice versa. Consistent use of an issue or bug tracking system is considered one of the "hallmarks of a good software team".[3] A ticket element, within an issue tracking system, is a running report on a particular problem, its status, and other relevant data. They are commonly created in a help desk or call center environment and almost always have a unique reference number, also known as a case, issue or call log number which is used to allow the user or help staff to quickly locate, add to or communicate the status of the user's issue or request.

These tickets are called so because of their origin as small cards within a traditional wall mounted work planning system when this kind of support started. Operators or staff receiving a call or query from a user would fill out a small card with the user's details and a brief summary of the request and place it into a position (usually the last) in a column of pending slots for an appropriate engineer, so determining the staff member who would deal with the query and the priority of the request.

The shared conceptual foundation between issue tracking systems and bugtrackers is that a valid issue must be amenable to a decisive resolution (such as "completed", "fixed", or a group consensus that the issue is not worth solving, such as "not a problem" or "won't fix"); that each issue is unique (duplicate problem reports are in most cases promptly amalgamated into a single active issue or ticket); and—beyond the screening stage—that there is precisely one person assigned formal responsibility to move the issue forward (this formal baton will often bounce around many times as the issue evolves). In bug trackers, issues are generally quality or feature related with respect to a codebase (which is inherently a project management setting) whereas in generalized issue tracking systems, the tickets are often service-related or relationship-based, with closer ties to customer relationship management (CRM) concerns.

PURPOSE OF THE PROJECT:

This system can be used to report the issues online .It can digitalize the reporting issues. It improves the efficiency of the issue solving process. This system can be helpful to provide the analysis of all the issues that are being faced by the users. Budget allocation Prediction can also be done.

REQUIREMENTS:

USER INTERFACE:
- The Interface between software product and hardware product components and the user is called user interface
- If the is a person who have no knowledge about the website he can check help page to know the functioning.

HARDWARE INTERFACE:
The interface uses hardware devices like keyboard mouse etc.

SOFTWARE INTERFACE:
- Front end: XML
- Web Server: WAMP SERVER
- Database: SQL
- Back-end: JAVA

UML Diagrams

UML (Unified Modeling Language) is a standard language for specifying, visualizing, constructing, and documenting the artifacts of software systems. It was initially started to capture the behavior of complex software and non-software system and now it has become an OMG standard. This tutorial gives a complete understanding on UML.

UML is a standard language for specifying, visualizing, constructing, and documenting the artifacts of software systems.

UML stands for Unified Modeling Language.

UML is different from the other common programming languages such as C++, Java, COBOL, etc. UML is a pictorial language used to make software blueprints.

Although UML is generally used to model software system, it is not limited within this boundary. It is also used to model non-software systems as well. For example, the process flow in a manufacturing unit, etc.

UML is not a programming language but tools can be used to generate code in various languages using UML diagrams. UML has a direct relation with object- oriented analysis and design. After some standardization.

Components of UML

UML diagrams are the ultimate output of the entire discussion. All the elements, relationships are used to make a complete UML diagram and the diagram represents a system. The visual effect of the UML diagram is the most important part of the entire process. All the other elements are used to make it complete.

UML includes the following nine diagrams, the details of which are described in the subsequent chapters.

Class diagram Object diagram Use case diagram Sequence diagram

Collaboration diagram Activity diagram

State chart diagram Deployment diagram Component diagram
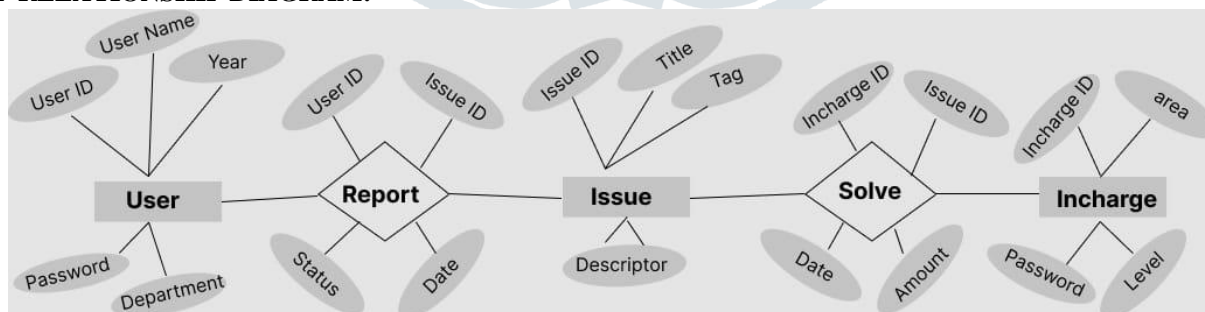
The following are the main components of uml: - Use-case Diagram
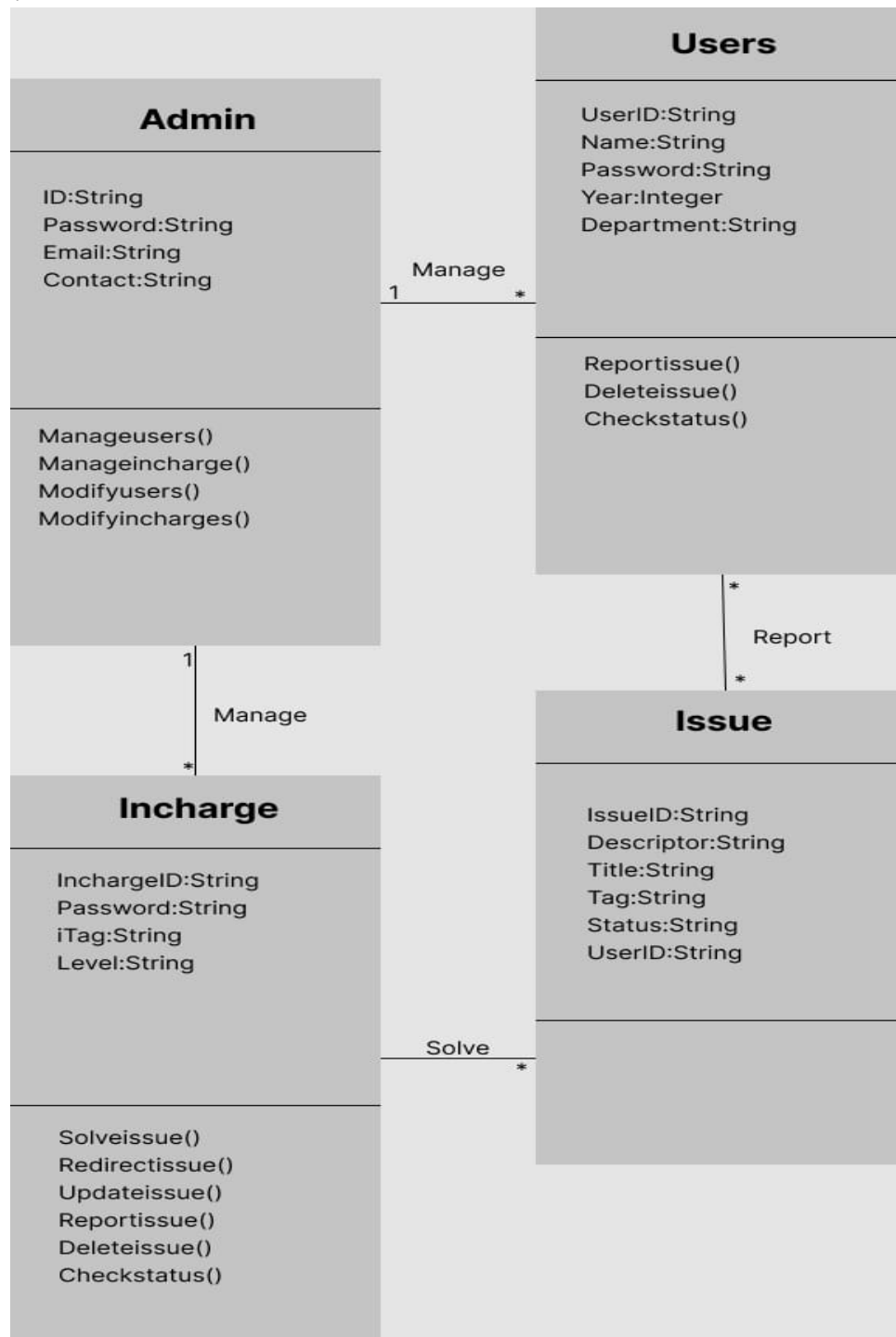
Class Diagram Activity Diagram Sequence Diagram

Scenarios:

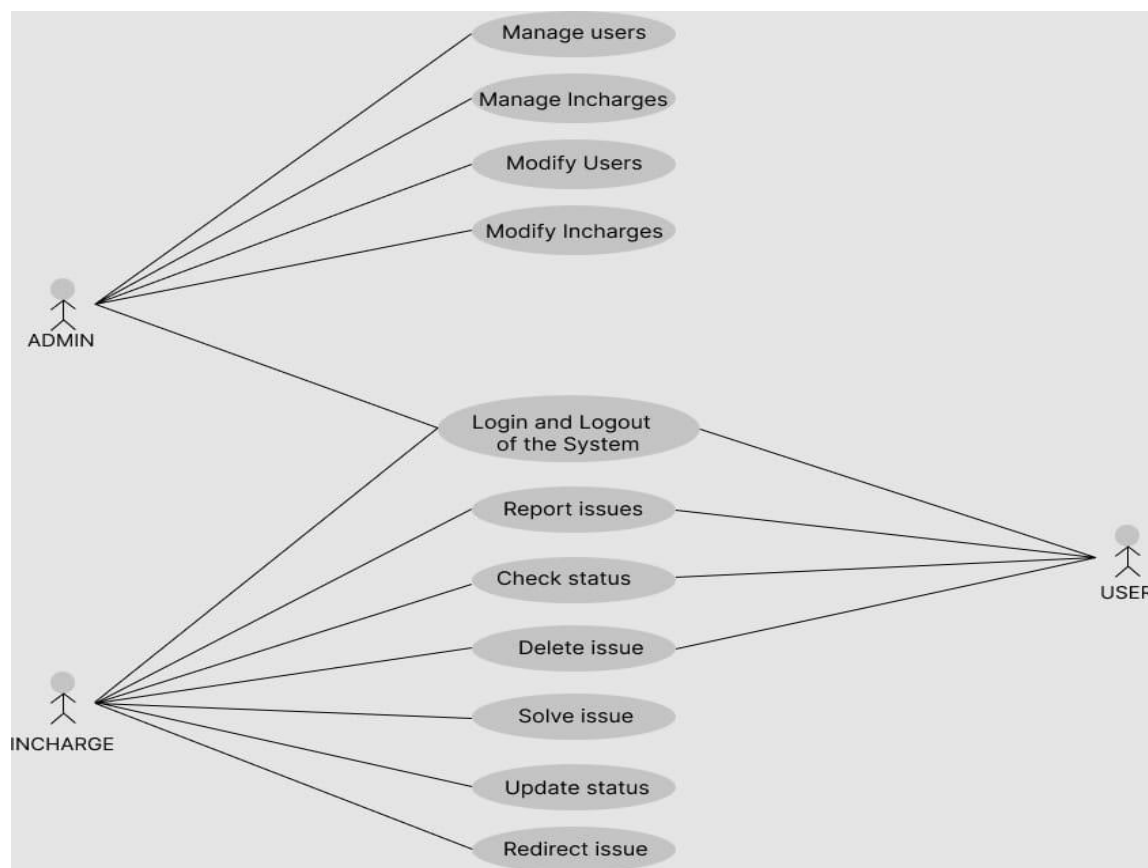Scenario is a description of a specified sequence of actions. It depicts the behavior of objects undergoing a specific action series. The primary scenarios depict the essential sequences and the secondary scenarios depict the alternative sequences. A scenario is an instance of a use case; that is, A use case specifies all possible scenarios for a given piece of functionality. A use case is initiated by an actor. After its initiation a use case may interact with other actors, as well. A use case represents a complete flow of events through the system in the sense that it describes a series of related interactions that result from its initiations.

DIAGRAMS:
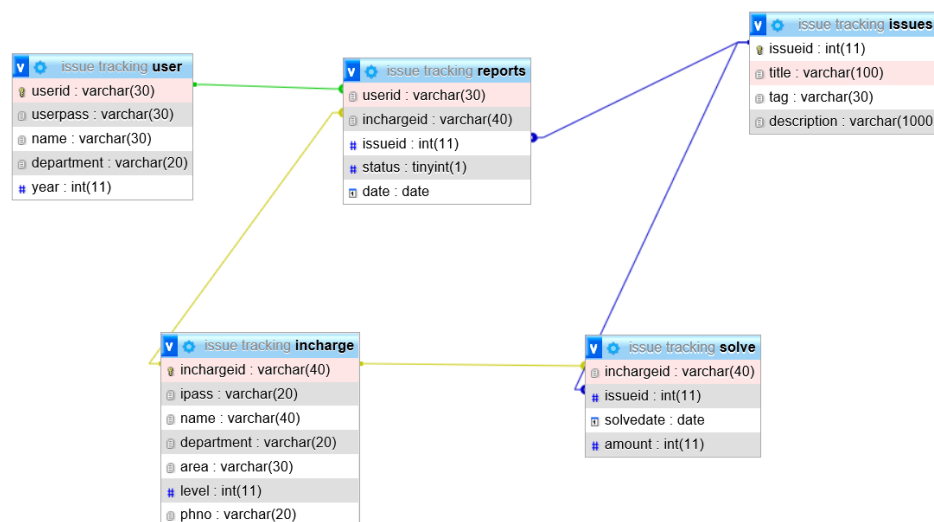
ENTITY-RELATIONSHIP DIAGRAM:

CLASS DIAGRAM:

Users

UserID:String
Name:String
Password:String
Year:Integer
Department:String

Reportissue()
Deleteissue()
Checkstatus()

Admin

ID:String
Password:String
Email:String
Contact:String

Manageusers()
Manageincharge()
Modifyusers()
Modifyincharges()

Manage
1   *

*
Report
*

Issue

IssueID:String
Descriptor:String
Title:String
Tag:String
Status:String
UserID:String

1
Manage
*

Incharge

InchargeID:String
Password:String
iTag:String
Level:String

Solveissue()
Redirectissue()
Updateissue()
Reportissue()
Deleteissue()
Checkstatus()

Solve
*

USE CASE DIAGRAM:

DESIGN AND IMPLEMENTATION:

Database Design

- **User Table** has 5 main fields user id, user pass, name, department, year where userid is the primary key.

Staff who are not in-charges are also considered as users. The year column for these users is 0.

User can register themselves by sign up process.

- **Incharge** table has 7 fields they are incharge-id, i pass, name, department, area, level, phone no.

The in-charges are allotted by the Admin and for any login changes they have to contact the Admin.

- **Issue** table has 4 fields issue id which is the primary key and auto incremented, title of the issue, tag of the issue and the description of the issue.

Tag of the issue is the domain of the issue like Academics, sports, administration, transportation, fees etc.

- **Reports** table has 5 fields they are User id, incharge id, issue id, status, date.

If the user who is reporting the issue is a student then the incharge id field will be null.

In the same way if the user who is reporting the issue is an in charge then the user id field will be null.

After reporting the issue the respective issue id will be inserted and by default the status of the issue will be zero until it is resolved.

The date column will be inserted with the respective date when the issue is reported.

- **Solve** table has 4 fields they are incharge id, issue id, solve date, amount.

Incharge id is the id of the incharge who has solved the issue

Issue id is the id of the issue

Solve date is the date when the issue is solved

Amount is the expenses to solve that issue. For example, plumbing problem in any department involves some amount to solve that problem that amount will be entered in the amount column.

Prototype Design in Fig ma

Fig ma is a vector graphics editor and prototyping tool which is primarily web-based, with additional offline features enabled by desktop applications for macOS and Windows. The Fig ma mobile app for Android and iOS allow viewing and interacting with Fig ma prototypes in real-time mobile devices. The feature set of Fig ma focuses on use in user interface and user experience design, with an emphasis on real-time collaboration.

Prototype design

CONCLUSION:

The issue tracking system is a modern issue management tool which will seamlessly integrate with your existing software and is proven to significantly enhance the productivity of any organization as well as collaborative settings.

The project comprises three components namely the code, the databases and the analysis part.

The issue tracking application has a front-end and back-end creating and connecting which constitutes the coding part.

The databases hold the details and primary attributes of all the entities in the system in the form of fields in a table. The tables in the database are created and the whole database is managed (created, inserted, updated, deleted) using the PHP My Admin application along with the Wamp server. This database acts as the back-end of the application.

The front-end of the app is designed using the android studio application which provides functionalities, tools that help create the various screen/views in the app.

The connection of the database with the front-end is done using PHP and java is also used in the coding.

The analysis section includes both data visualization and data prediction which is done using the tableau application. The data visualization is done using the data to gain reports of different specifications that help to manage the budget allotted, incurred as well as the issues reported, solved as such. The data prediction is the main aspect of the project as for this issue tracking system in which the budget is to be predicted so that necessary allotment could be done. The forecast tool is utilized and with the input data the budget prediction for the following years is completed.

In this way the project i.e the issue tracking system and budget prediction is accomplished.

Budget prediction for the following years
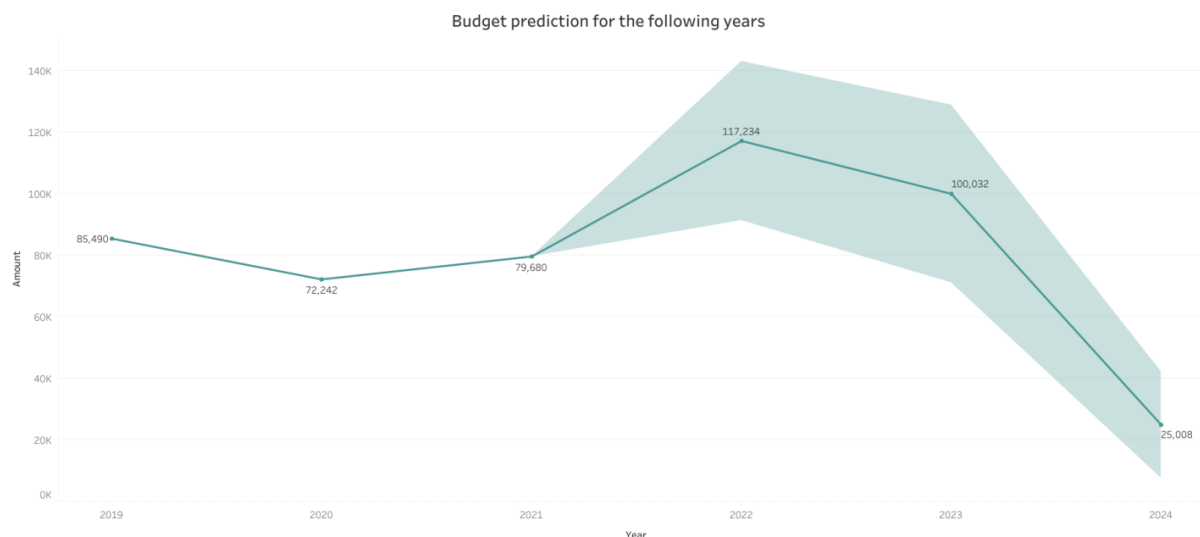
The budget prediction for the following years such as 2019, 2020, 2021, 2022 is done using the forecast option in the analysis tool in the form of line graph,the main dimension is the year and the measure is the amount.The trend of sum of Amount (actual & forecast) for Years is depicted.

Budget prediction

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V.Neelima Devi Project Guide working as head of department in Master of computer application (MCA) Sanketika Vidya Parishad Engineering college, Visakhapatnam, Andhrapradesh. with 6 years of experience in master of computer applications(MCA),Accredited by NAAC. with her area of interests in C, Computer Organization, Software Engineering IOT.

Uggina Ganesh is studying his 2nd year, Master of Computer Applications in Sanketika Vidya Parishad Engineering College, affiliated to Andhra University, accredited by NAAC. With his interest in data base and servers as a part of academic project, he choose Issue Tracking system and Budget prediction. As a result of a desire we discovered Tracking System with the help of this we can file and know the status of the issue. A completely developed project along with code has been submitted for Andhra University as an Academic Project. In completion of his MCA.