CHATBOT BASED STUDENT INFORMATION SYSTEM

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ABSTRACT

The mission of the Student Information Management system is to create an integrated information technology environment for students. Our goal is to focus on services and integration for end users.It is an Android based self-service environment for students, prospective students, and employees; an administrative transaction processing environment for early admissions; an informative environment for all levels of faculty and staff to do reporting, data extraction and information analysis.It is mainly useful for educational establishments to manage student data which also facilitates all individual associated information for easier navigation on daily basis. It provides capabilities for entering student test and other assessment scores, building student schedules, tracking student attendance and managing many other student-related data needs in a college.Our easy-to-use, integrated college administration application would be used to reduce time spent on administrative tasks, as to concentrate on other skillful practical activities other than book worming.

INTRODUCTION

Mobile information systems are extending the possibilities for when and where to perform learning for different communities. In this paper we particularly address students.Mobile computing is also changing the way of communication between teachers and students and can be used effectively to improve instructional quality. Campus Information System for students is defined as an interrelated group of information resources, accessible by computer through the campus institutional external and internal web environment, that a university places at the disposal of its users to enable them to consult it and /or provide a selection of significant and relevant data, in the wide context of their university life in its academic, administrative and social senses, in order to improve student's knowledge base.

This study describes a system called mobile student information system (MSIS) based on mobile computing and context-aware application concepts, which purpose is to provide more user-centric information services to students. Different services are proposed in this system combining location-aware and context-sensitive information services for the students at the university.

Feedback gathered from the students through a survey based on usage of early versions of the system has been guiding the directions and design of the current solution. For any student it is important to have up to date information about current exercise assignments, lectures, upcoming appointments and other daily activities.

This is especially true for new students who are still unfamiliar with current routines and practices. They may also have trouble finding their way around campus, often with hundreds of different auditoriums and rooms spread across a large area. In such situations it is vital to have correct information available. Sometimes the communication of information can make use of a more active approach instead of asking the student to locate the information needed. The information can be "pushed" to the person concerned based on his profile, requiring less effort and intervention from the user. Examples of these can be updates about class, courses, reminders from friends, school mates, or similar.

LITERATURE SURVEY

GSM

The Short Message Service–Point to Point (SMS-PP) was originally defined in GSM recommendation
03.40, which is now maintained in 3GPP as TS23.040.

GSM03.41 (now 3GPP TS 23.041) defines the Short Message Service–Cell Broadcast (SMS-CB), which allows messages (advertising, public information, etc.) to be broadcast to all mobile users in a specified geographical area.

MESSAGE SIZE

Transmission of short messages between the SMSC and the hand set is done whenever using the Mobile Application Part (MAP) of the SS7 protocol. Messages are sent with the MAP MO- and MT-Forward SM operations, whose payload length is limited by the constraints of the signaling protocol to precisely140 octets (140octets = 140 * 8 bits = 1120 bits). Short messages can be encoded using a variety of alphabets: the default GSM7-bitalphabet,the 8-bit data alphabet, and the 16- bit UCS-2 alphabet. [35] Depending on which alphabet the subscriber has configured in the handset, this leads to the maximum individual short message sizes of 160 7- bit characters, 140 8-bit characters, or 70 16-bit characters. GSM7-bit alphabet support is mandatory for GSM handsets and network elements, but characters in languages such as Arabic, Chinese, Korean, Japanese or Cyrillic alphabet languages (e.g. Russian, Serbian, Bulgarian, etc.) must be encoded using the 16-bit UCS-2 character encoding (see Unicode). Routing data and other metadata is additional to the payload size.

GATEWAY PROVIDERS

SMS gateway providers facilitate SMS traffic between businesses and mobile subscribers, including mission-critical messages, SMS for enterprises, content delivery, and entertainment services involving SMS, e.g.TV voting. Considering SMS messaging performance and cost, as well as the level of messaging services, SMS gateway providers can be classified as aggregators or SS7 providers.

The aggregator model is based on multiple agreements with mobile carriers to exchange two-way SMS traffic into and out of the operator's SMSC, also known as local termination model. Aggregators lack direct access into the SS7 protocol, which is the protocol where the SMS messages are exchanged. SMS messages are delivered to the operator's SMSC, but not the subscriber's handset; the SMSC takes care of further handling of the message through the SS7 network.

INTER CONNECTIVITY WITH OUR NETWORKS

Message Service Center communicate with the Public Land Mobile Network (PLMN) or PSTN via Interworking and Gateway MSCs.Subscriber-originated messages are transported from a handset to a Service Centre, and may be destined for mobile users, subscribers on a fixed network ,or Value-Added Service Providers (VASPs) , also known as application-terminated. Subscriber-terminated messages are transported from the Service Centre to the destination handset, and may originate from mobile users, from fixed network subscribers, or from other sources such as VASPs.

DENIAL OF SERVICE ATTACK (DoS ATTACK)

A denial-of-service attack (DoS attack) or distributed denial-of-service attack (DDoS attack) is an attempt to make a machine or network resource unavailable to its intended users. Although the means to carry out, motives for, and targets of a DoS attack may vary, it generally consists of the efforts of one or more people to temporarily or indefinitely interrupt or suspend services of a host connected to the Internet.

One common method of attack involves saturating the target machine with external communications requests, such that it cannot respond to legitimate traffic, or responds so slowly as to be rendered effectively unavailable. Such attacks usually lead to a server overload. Ingeneral terms, DoS attacks are implemented by either forcing the targeted computer(s) to reset, or consuming its resources so that it can no longer provide its intended service or obstructing the communication media between the intended users and the victim so that they can no longer communicate adequately.

Denial-of-service attacks are considered violations of the Internet proper use policy, and also violate the acceptable use policies of virtually all Internet service providers. They also commonly constitute violations of the laws of individual nations.

SYSTEM ANALYSIS

EXISTING SYSTEM

In the existing system, there is not much information that can be retained and checked by lecturers. For this purposes the lecturer need to save manually all the data in order to check and analyze the data from the system. This proposed system will save time and reduce a delay process in surfing when the certain information is required. The existing system made repeated of information to be saved and the old information cannot be updated. This system will solve these problems that frequently occurred at the existing system. From the previous system, all data that been used are recorded in the system.

DISADVANTAGES OF EXISTING SYSTEM

The disadvantage of the existing system is not reliable for the user. In the case when a file is opened for each application, the previous system showed that there some problems occurred e.g. data loss and damage, the list of files is difficult to be viewed and difficult to be checked the student status. As to respond to all the problems stated, the project targeted several objectives that to be achieved at the end of this project.

PROPOSED SYSTEM

This system based on database concept which is more reliable. All student data will be kept in a dedicated database. By using this database concept, some problems such as data loss and damage can be avoided. This system also targeted to make an easy checking students' status. By using this system, student can check the latest news status faster in time compared to the existing system.

ADVANTAGES OF PROPOSED SYSTEM

Therefore, the system can reduce waiting time in order to check all the files like before. The other objective is the issue that related to searching and updating the data. Students can search and update the data systematically. This system will provide some functions such as searching and updating in order to help the system to control the data applications.

IMPLEMENTATIONMODULES

- Registration Module
- Login Module
- News Module
- Create Communication Module
- Chatting Module

MODULEDESCRIPTION

REGISTRATIONMODULE

This module will help the student get registered in the system .This module will really simplify the task of on paper registration. Also after successful registration the user can update information and change their password as and when required. Every student can register in this system using his roll number and registration number.

LOGINMODULE

Login module will help in authentication of user accounts .Users that have valid login id and password can only login into the irrespective accounts. The system can make the credentials for the student's data.

NEWSMODULE

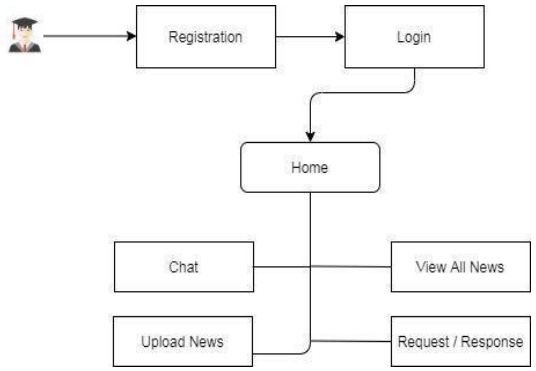
The news module is using the student or seniors can upload the interview details, Special course details and job related information into the system. Every authenticated student and users can view all the news, each news has a unique id.

CREATE COMMUNICATION MODULE

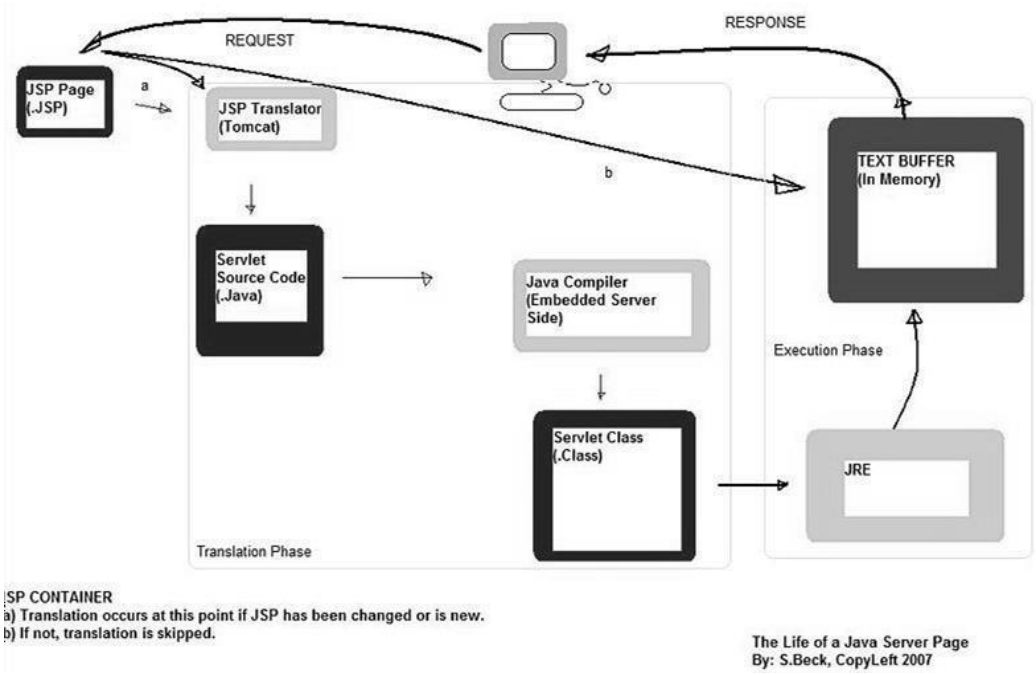
This module is used to the users communicate with other student or users. Once the user is communicate other user, send the request to the particular student. Then the student was accepting the user request after the system will create the communication.

CHATTING MODULE

This module used to chat the student in this system using registered id. Online chat may refer to any kind of communication over the system that offers a real-time transmission of text messages from user to user.



Architecture OF JSP



SYSTEM DESIGN

SYSTEM ARCHITECTURE

REQUEST AND RESPONSE OBJECTS

The do Get method has two interesting parameter: HttpServiceRequeststand Response These two objects give you full access to all information about the request and let you control the output sent to the client as the response to the request. With CGI you read environment variables and std into get information about the request, but the names of the environment variables may vary between implementations and some are not provided by all Webservers.

The HttpServletRequest object provides the same information as the CGI environment variables, plus more, in a standardized way. It also provides methods for extracting HTTP parameters from the query string or the request body depending on the type of request (GET or POST). As a Servlet developer you access parameters the same way for both types of requests.

SERVLET CONFIG AND SERVLET CONTEXT

There is only one ServletContext in every application. This object can be used by all the Servlet to obtain application level information or container details. Every Servlet, on the other hand, gets its own ServletConfig object. This object provides initialization parameters for a servlet. A developer can obtain the reference to ServletContext using either the ServletConfig object or ServletRequest object. All servlets belong to one servlet context. In implementations of the 1.0 and 2.0 versions of the Servlet API all servlets on

one host belongs to the same context, but with the 2.1 version of the API the context becomes more powerful and can be seen as the humble beginnings of an Application concept. Future versions of the API will make this even more pronounced. This system will help the Student Information System database works systematically and will make ease the user in order to manage all the student data in the system.

CONCLUSION

As for the conclusion, the objectives for this project were achieved and functioned well as the desired target. This system will help the Student Information System database works systematically and will make ease the user in order to manage all the student data in the system.

This system will give a better performance in arranging the lecturer and student information without having to do it manually. This system will help faculty's staff to arrange student matter and schedule faster and easier.

Furthermore it will allow the lecturer to focus on other important task in the Faculty. As the future recommendation, the project is recommended to be built with the fully functional software that fulfills all the criteria needed and also applied with more complicated algorithm to the system.

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