

ENHANCING THE SMART ROOM SYSTEM WITH E-TOURISM SERVICES

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Abstract- The Smart-Room system is a service-oriented application for assisting such collaboration activity as conference or meeting in a room equipped with computing and presentations devices and Internet access. The development is open source and based on the Smart-M3 platform. In this project, we consider advanced scenarios for Smart Room to enhance the latter with e- Tourism services. We introduce a smart space-based architecture for this enhancement. We provide an ontology for representing and sharing the tourism-related information for service construction. Based on the architecture and ontology, several case study services are designed. In particular, we implement a service for collaborative construction of a social program for conference participants. The implemented service is integrated into the Smart-Room system and demonstrates the feasibility of the proposed design

Index Terms- Web pages, Ontologies, Collaboration, Computer architecture, Mobile handsets, Collaborative work, Aerospace electronics.



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I. INTRODUCTION

Tourism is large industry nowadays. Its growth shows a significant year to year increase, and support from eservices is clearly demanded on the market (e-Tourism). More and more people become aware of e-Tourism advantages for planning their activities [1], [2], [3]. Existing computing environments for collaborative work can be enhanced with the e-Tourism services to take own niche on the market. For instance, such services can augment the primary collaboration activity by automation and assistance in construction of a social program and travel plan for the activity participants.

Development of e-Tourism services can utilize the emerging approach of smart spaces. In general, it creates computing environments for heterogeneous devices to share their resources [4], [5]. The use of smart spaces in e-Tourism was recently studied in [2], [6], [7]. In this paper, we consider the case of Smart Room system [8], which demonstrates the use of smart spaces for one demanded application scenario. Smart Room provides a set of services for assisting such collaboration activity as conferences or meetings. Personal mobile devices are primary access and control points for users [9]. The core services aim at support for intensive in-room collaborative work using surrounding devices for hosting the system. The Smart Room system creates a domain-specific knowledge sharing environment (virtual shared workspaces) for collaboration activity of human participants. The system consists of software agents that construct and deliver services in a shared smart space—Smart Room space. It makes localization and relation of information in regard to the in-room area and to information sources of participants. The implementation is based on SmartM3 [10]; the latter provides means for creating and deploying a smart space in a given computing environment. A semantic information broker (SIB) maintains its smart space utilizing technologies from the Semantic Web. Agents act as knowledge processors (KPs) that share information and form cooperatively the smart space and its services Based on our previous work [8], we consider Smart

Room as a case study of the e-Tourism enhanced systems for collaborative work. This paper makes the next development step toward the Smart Room enhancement. The development includes design solutions and their implementation as well as experimental deployments with the implemented software prototype. We propose e-Tourism scenarios for advanced use in Smart Room collaborative activity. We develop a smart space based architecture for this enhancement. We provide an ontology for representing and sharing the tourism-related information for service construction. Based on the architecture and ontology, several services are designed for the case study. In particular, we implement a service for collaborative construction of social program for conference participants. Integration of this service into the Smart Room system successfully demonstrates the feasibility of the proposed solutions.

II. AIM & OBJECTIVES

- Our approach employs the Smart-Room system to implement various services of different domains within this base system.
- E-tourism is to create IT embedded infrastructure at destinations on the one hand and to make traveller smart enough to utilize e-technique

III. LITERATURE SURVEY

- “e-Tourism: a tourist recommendation and planning application”, Laura Sebastian, Inma Garcia, Eva Oneida, Cesar Guzman e-Tourism is a tourist recommendation and planning application to assist users on the organization of a leisure and tourist agenda. First, a recommender system offers the user a list of the city places that are likely of interest to the user.
- “Intelligent Mobile Tourist Guide” Alexey Kashevnik; An Intelligent Tourist guide management System is an application that allows customers to travel the world through the best travel package available. The tourism industry is one of the growing industries since people keep on traveling. Tourists prefer to book their destination just through the use of mobile devices.
- “Intelligent tourism recommender systems: A survey” Antonio Moreno Recommender systems are currently being applied in many different domains. This paper focuses on their application in tourism. A comprehensive and thorough search of the smart e-Tourism recommenders reported in the Artificial Intelligence journals and conferences since 2008 has been made. The paper provides a detailed and up-to-date survey of the field, considering the different kinds of interfaces, the diversity of recommendation algorithms, the functionalities offered by these systems and their use of Artificial Intelligence techniques. The survey also provides some guidelines for the construction of tourism recommenders and outlines the most promising areas of work in the field for the next years
- “Design principles and practices of interoperable smart spaces” Eila Ovaska, Alessandra Toninelli, Tullio Salmon Cinotti Smart spaces provide information about physical environments, shared with inherently dynamic applications. This chapter introduces a novel development approach with its focus on two key properties of smart space applications: the ability to interoperate and behave in a situation-sensitive manner. Sixteen principles are defined in order to guide the development of an interoperability platform for smart spaces and on how to create applications on top of it. The interoperability platform deals with information and is agnostic with respect to ontologies, programming languages, service frameworks, and communication technologies. The interoperability platform also supports extensibility, evolve-ability and context based adaptation, which allows new applications to be added and to behave in a situation based manner. Agile application development is based on scenario specifications, implemented by the means of the ontology and model driven development. The approach has been applied to the development of smart personal spaces, smart indoor spaces, and smart city applications.

IV. MOTIVATION

The basic Smart-Room design supports enhancing the system with new services. Enhancement of the core services introduces additional assistance for the collaborative work. The conceptual model will present in our system for the studied e-Tourism case. We define and analyze the e-Tourism scenarios for this enhancement.

V. SYSTEM ARCHITECTURE

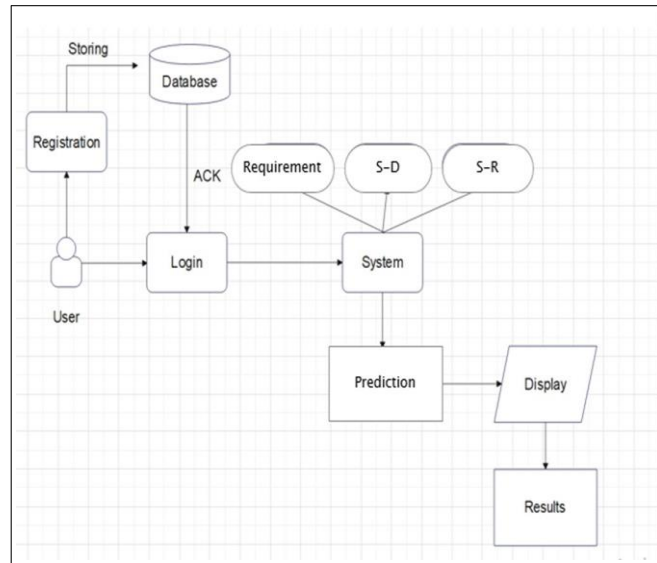
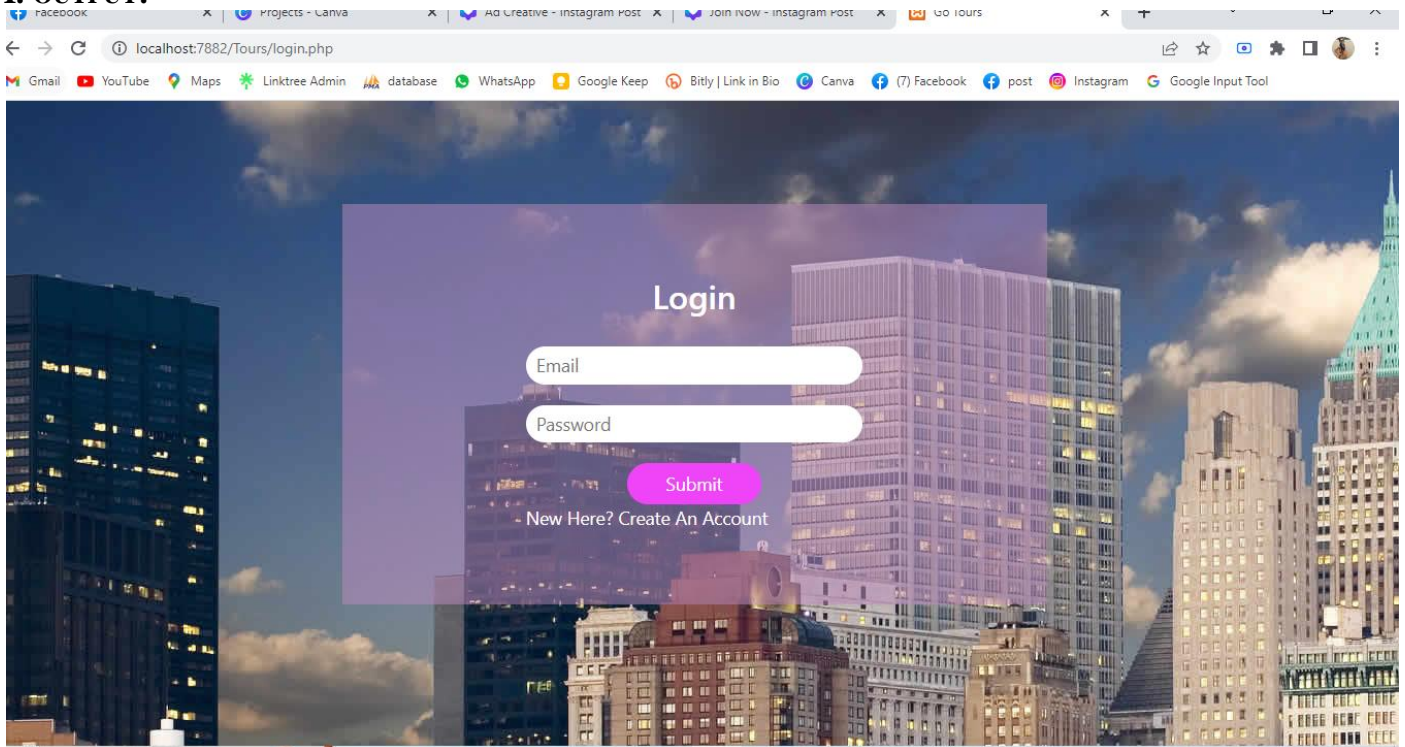
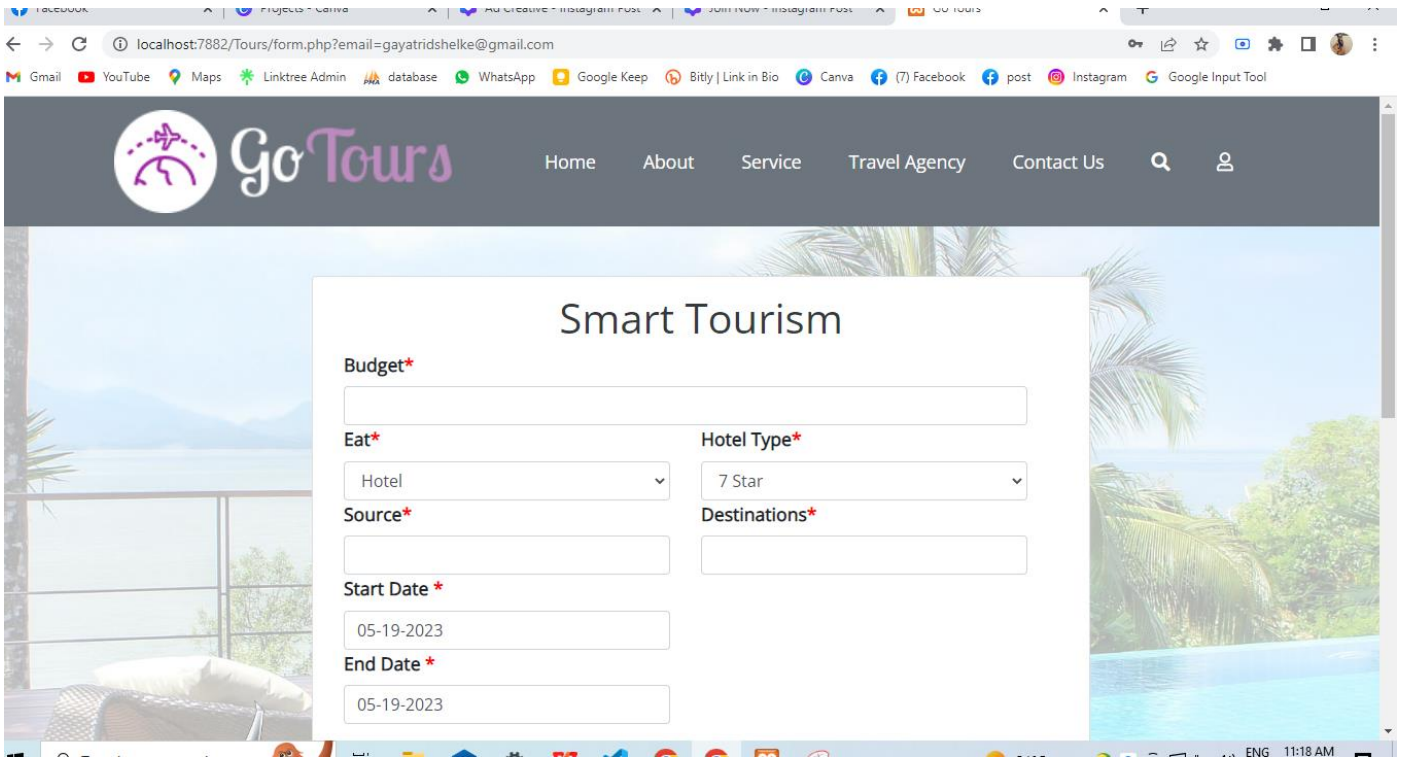


Fig. 1- System Architecture Diagram

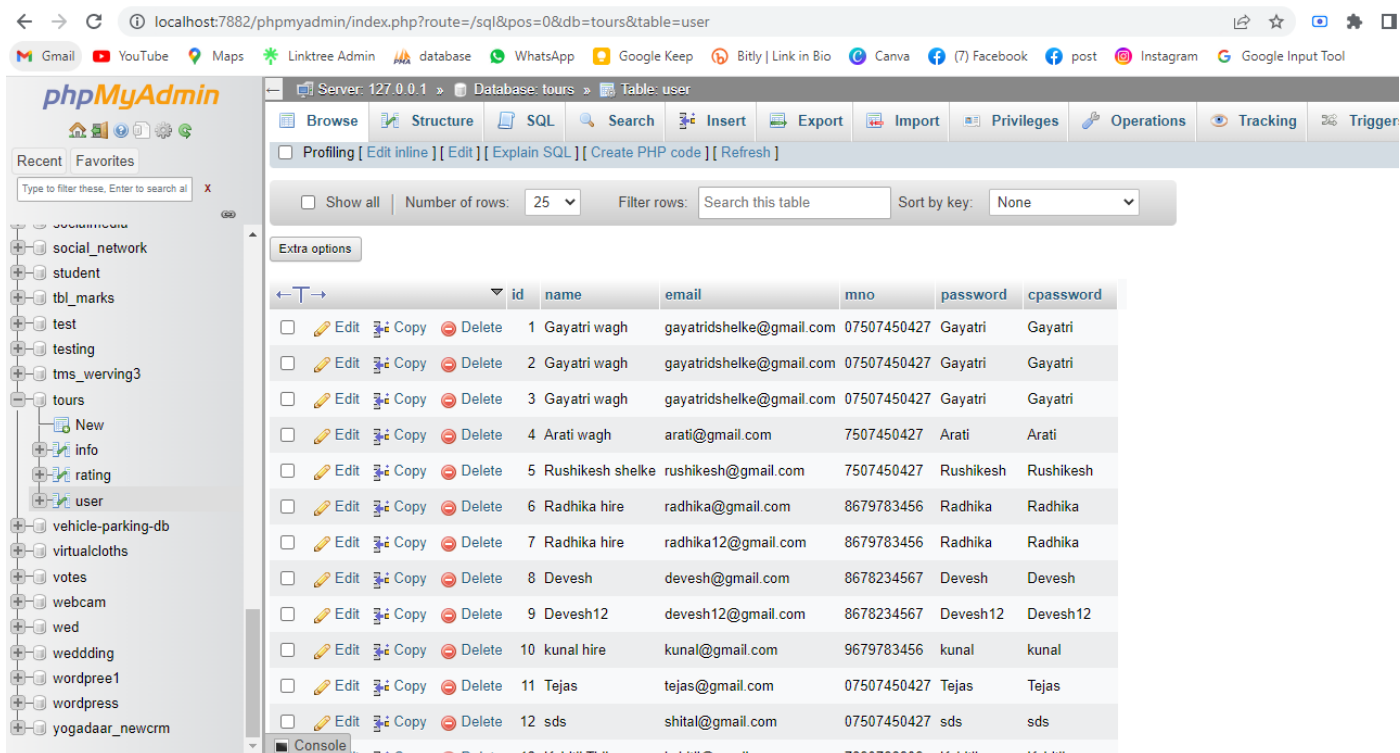
VI. OUTPUT:





```
File Edit Selection View Go Run Terminal Help register.php - Tours - Visual Studio Code
EXPLORER
  TOURS
    assets1
    css
    css1
    design
    go-tours
    imgs
    js
    js1
    webfonts
    .gitignore
    chart_data.csv
    chart.php
    coming.png
    config-pdo.php
    config.php
    connection.php
    dashboard.php
    datajson
    demo.php
    feedback.php
    form.php
    hello.html
    index-csv.php
    index-pdo.php
    index.html
    link.txt
  OUTLINE
  TIMELINE

register.php
1 <?php
2 include("connection.php");
3 error_reporting(0);
4
5 if(isset($_POST['submit']))
6 {
7     $name=$_POST['name'];
8     $email=$_POST['email'];
9     $mno=$_POST['mno'];
10    $password=$_POST['password'];
11    $cpassword=$_POST['cpassword'];
12
13    $emailquery="select * from user where email='".$email."'";
14    $res=mysqli_query($con,$emailquery);
15
16    $emailcount=mysqli_num_rows($res);
17
18    if($emailcount>0)
19    {
20        echo '<script>alert("email already exit")</script>';
21    }
22    else
23    {
24        if($password == $cpassword)
25        {
26
27            $sql="insert into user(name,email,mno,password,cpassword)values('".$name."','".$email."','".$mno."','".$password."'";
28            $res = mysqli_query($con, $sql);
29            echo "<script>
30            alert('Successfully Register');
31            </script>";
32            echo '<script>>window.location.href = "login.php"</script>';
33        }
34    }
}
```



VII. CONCLUSION

In this system, we are overcoming the drawback of existing system and also providing the better solution as compare to existing system. In this project, we consider advanced scenarios for Smart Room to enhance the latter with eTourism services. We introduce a smart space based architecture for this enhancement. We provide an ontology for representing and sharing the tourism related information for service construction. Based on the architecture and ontology, several case study services are designed.

VIII. APPLICATION

- Public sector
- Government sector
- Tourism
- Transportation
-

IX. FUNCTIONAL & NON-FUNCTIONAL REQUIREMENTS

Functional requirements: may involve calculations, technical details, data manipulation and processing and other specific functionality that define what a system is supposed to accomplish. Behavioral requirements describe all the cases where the system uses the functional requirements; these are captured in use cases.

Nonfunctional Requirements: (NFRs) define system attributes such as security, reliability, performance, maintainability, scalability, and usability. They serve as constraints or restrictions on the design of the system across the different backlogs.

Functional requirements

1. Registration
2. User Login
3. Creation of database: Users Mandatory Information

Design Constraints:

1. Database
2. Operating System
3. Web-Based Non-functional Requirements

Security:

1. User Identification
2. Login ID

3. Modification

Performance Requirement:

1. Response Time
2. Capacity
3. User Interface
4. Maintainability
5. Availability

SYSTEM REQUIREMENTS

Software Used:

- Python 3.9.0 or above,
- Kaggle and
- PyCharm

Hardware Used:

- I3 processor or above
- 150 GB Hard Disk or above
- 4 GB RAM or above

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