

# Analyzing & Implementing the Services of Bicycle Leasing for the Needy Environment

B. Venkata Rao<sup>1</sup>, K. Anji Reddy<sup>2</sup>, M. Priyashithi<sup>3</sup>

<sup>1</sup>Asst. Professor, Department of Computer Applications, V.R.S.E.C, Vijayawada -7, Andhra Pradesh, India

<sup>2</sup>Head, Department of Computer Applications, V.R.S.E.C, Vijayawada -7, Andhra Pradesh, India

<sup>3</sup>Student, Department of Computer Applications, VRSEC, Vijayawada-7, Andhra Pradesh, India

**Abstract:** *The main theme of Bicycle Rental Management System web application is to provide a web based application to the users. Bicycle Rental Managing Store is an innovative thought to simplify the transportation problems of people. Authorised persons maintain the transportation details in papers, which is tedious task. In previous system, details are stored manually, in papers; to store the details between users was a financial drawback. Updation's in the details is a tedious task. But a new system was proposed to overcome the above drawbacks. This system consist of 'Rent a Bicycle' feature whereas can ask admin for bicycle on rent. The payment will be mandatory. The visitor who visits the system must register himself by filling up personal details.*

## 1. Introduction

This paper primarily aims at encouraging students to focus on developing applications that not only can they use but also can help the society in general. This way, students will be able to fulfill their responsibility to developing expertise in their preferred subject.

The Bicycle Rental Management System is web based on the rental purpose on available of bicycles and details about the system. The bicycle rental management system is used to view the all the bicycles. The main focus of this application is customer convenience in transportation and helpful to the physical Exercise also.

## 2. Overview of bicycle rental management system in java Servlet

The bicycle rental management system is web based application so anyone can be used an application. The bicycle rental management system is implemented on this module only focused on the renting of bicycles and available the bicycles select and choose the cycle. I have implemented on the payment.

A servlet is a Java programming language class that is used to extend the **capabilities** of servers that host applications accessed by **means** of a **request-response programming model**. Although servlets can respond to any type of request, they are commonly used to extend the applications hosted by **web servers**.

### What is the use of Servlets?

Servlets may be used at different levels on a distributed framework. The following are some examples of servlet usage:

- To accept form input and generate HTML Web pages dynamically.
- As part of middle tiers in enterprise networks by connecting to SQL databases via JDBC.
- In conjunction with applets to provide a high degree of interactivity and dynamic Web content generation.

- For collaborative applications such as online conferencing.
- A community of servlets could act as active agents which share data with each other.
- Servlets could be used for balancing load among servers which mirror the same content.
- Protocol support is one of the most viable uses for servlets. For example, a file service can start with NFS and move on to as many protocols as desired; the transfer between the protocols would be made transparent by servlets. Servlets could be used for tunneling over HTTP to provide chat, newsgroup or other file server functions.

### Advantages:

- User does not have to go manually; this saves time as well as human effort of the user.
- It can also useful for Physical Exercise.
- Used to help Environment and control Sound pollution.
- Maintenance is easy and performance is good.
- Mainly the system has automated transportation process.

### System / Application Architecture:

The bicycle rental management system is web based related on the available of bicycles and their details and also details about the system. Bicycle rental management system is used to renting a bicycle and views the details of bicycles. The main focus the application customer renting a bicycle and also payment.

### Servlet Features:

Servlet is a java program, exist and executes in j2ee servers, used to receive the http protocol request, process and send response to client. Using Servlets, we can collect input from users through web page forms, present records from a database or another source, ; More secure than normal java code, portability, robust, secure, servlet code have better performance etc.

- **Portable:** As I mentioned above that Servlet uses Java as a programming language, since java is platform independent, the same holds true for servlets.

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- **Efficient and scalable:** Once a servlet is deployed and loaded on a web server, it can instantly start fulfilling request of clients.
- **Robust:** Servlet are managed by JVM so no need to worry about memory leak, garbage collection etc.
- **Secure:** Because it uses java language and java is a secure language.

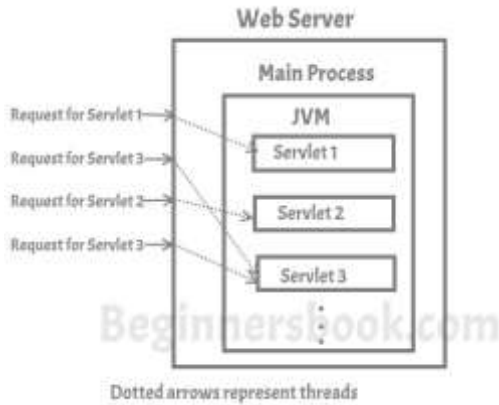


Figure 1.1: Features of servlet

Few screenshots related to the Bicycle Rental management System and how to interact and using with employee and admin as follows.



Figure 1.1: Bicycle List



Figure 1.1: Customer Rental Form



Figure 1.1: Employee login



Figure 1.1: Adding Bicycles



Figure 1.1: Employee Registration



Figure 1.1: Payment Process



Figure 1.1: Customer List



Figure 1.1: Payment Verification



Figure 1.1: Admin Page



Figure 1.1: Employee List



Figure 1.1: Daily Activities

## Author Profile



**Mr. B. Venkata Rao** is working as Assistant Professor in V. R. Siddhartha Engineering College, Kanuru, Vijayawada, Anihra Pradesh, India. He is currently pursuing Ph.D in Rayalaseema University, Kurnool. His main interest includes Networks, Wireless Communications and Security and applications programming. And have Publications in Internationa11 conference proceedings and a member of Professional Societies like CSI and ISTE.



**Mr. K. Anji Reddy** is currently working as HEAD, Department of Computer Applications, VR Siddhartha College of Engineering (Autonomous), Vijayawada, Andhra Pradesh. He has 16 years of teaching experience. His areas of interest are Data Warehousing & Data Mining.



**Miss. M. Priya Sahithi** is a student of Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada and is going to complete her master's degree from the department of Computer Applications. Andhra Pradesh.