

# **INTERNSHIP REPORT**

*A report submitted in partial fulfilment of the requirements for the Award of Degree of*

**BACHELOR OF TECHNOLOGY  
in  
COMPUTER SCIENCE AND ENGINEERING  
by  
MEGH NATH RAY  
Regd. No: 14A51A05C1**

**Under Supervision of  
MD SAJID  
CLOUD TECHNOLOGIES, Hyderabad.  
(Duration: 08<sup>th</sup> May, 2017 to 08<sup>th</sup> June, 2017)**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

**(An Autonomous Institution)**

**Approved by AICTE, Permanently affiliated to JNTU, Kakinada.**

**TEKKALI, ANDHRA PRADESH**

**2014– 2018**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT  
(An Autonomous Institution)

TEKKALI



## *CERTIFICATE*

This is to certify that the “**Internship report**” submitted by **MEGH NATH RAY(Regd. No: 14A51A05C1)** is work done by him and submitted during 2017 – 2018 academic year, in partial fulfilment of the requirements for the award of the degree of **BACHERLOR OF TECHNOLOGY** in **COMPUTER SCIENCE ENGINEERING**, at **CLOUD TECHNOLOGIES, Hyderabad.**

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## Certificate of Internship

This is to certify that

**MEGHNATH RAY, College ID: 14A51A05CI,**

a student of ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Tekkali, Andhra Pradesh. studying

in the course of BTECH has successfully completed one month

internship program from 08/05/2017 to 08/06/2017.

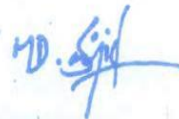
During the internship, he/she was exposed to the various activities as  
a part of our research unit.

We found extremely inquisitive and hardworking.

His / Her association with us was very truthful and we wish all the  
best in your future endeavors.



**Cloud Technologies**



Date : 08 June 2017

Authorised Signature

## ACKNOWLEDGEMENT

First I would like to thank SK Mohd Ali, the Team leader and analyst of CLOUD TECHNOLOGIES, Hyderabad for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me CLOUD TECHNOLOGIES, Hyderabad with their patience and openness they created an enjoyable working environment.

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I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

**MEGH NATH RAY**  
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## **ABSTRACT:**

This project report describes our work for the development of “Aditya Journals(AJ)”.Authors who wish to submit an article to any of Aditya Open Journals are requested to complete the following online form or through email with the proposed abstract of the article. The abstract of the article will then be immediately forwarded to the Editors of the relevant journal who will then inform the author with a decision about submitting the completed article. AJ is an international journal intended for professionals and researchers in all fields of computer science and electronics. AJ publishes research article and reviews within the whole field Engineering science and Technology. The publications of papers are selected through double peer reviewed to ensure originality, relevance, and readability. The articles published in our journal can be accessed online. AJ journals have our millions of readers and the fame and success of the same can be attributed to the strong editorial board which contains eminent personalities and the rapid, quality and quick review processing. Conferences make the perfect platform for global networking as brings together renowned speakers and scientists across the global to a most exciting and memorable scientific event filled with much enlightening interactive sessions, world class exhibitions and poster presentations AJ is a highly selective, peer-reviewed journal, covering topics that appeal to a broad leadership of various branches of engineering, science and related fields. The journal as many benefits all geared toward strengthening research skills and advancing academic to careers. Journal publications are a vital part of academic career advancement.

## **Organisation information:**

This report discusses my experience as a website development documentation intern at Cloud Technologies, Hyderabad from May 2017 to June 2017. Cloud Technologies provides their services in different fields like Software Services, Digital Marketing and also Academic Services. They provide services cater to multiple industry domains and verticals. Also provides development of responsive web designs and development using latest update technologies.

**Opportunity:**

I worked on short project at Cloud Technologies named Aditya Journals, which is an International Journal intended for professionals and researchers in all fields of computer science and electronics. I have done the Call For Paper module, of online publishing, also includes notifications about important dates for the submission of paper.

**Methodology:**

This project provides facility for the user to publish technical papers. The main idea behind this website is to exchange ideas in new emerging trends that needs more focus and exposure and is always committed to publish articles that will strengthen the knowledge of upcoming researchers and scientists. This project is implemented using JSP as the front-end and MySQL as back-end.

**Key parts of the report:**

In existed system, user can get all the details by checking through the website. User can find out all the information regarding the paper submission details in website. Fresher can also publish paper by using the guidelines and sample format which was present in the website. User can publish paper by sending through E-mail as offline otherwise, by filling the requirements asked by the site. User can get the acceptance notification within 3 days from the submission of paper.

**Benefits to the company / Institution through your post:**

The institution combines pioneering research with top class education. An innovative curriculum allows the student flexibility in selecting courses and projects. Students, even at the undergraduate level, get to participate in on-going research and technology development – an opportunity unprecedented in India.

**Learning Objectives/Internship Objectives:**

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and you interest in learning more

- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some Internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing Internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for Training internship, make you stand apart from the rest of the applicants so that you have an approved chance of landing the position.



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**Weekly overview of internship activities:**

<b>1<sup>st</sup> WEEK</b>	<b>DATE</b>	<b>DAY</b>	<b>NAME OF THE TOPIC/MODULE COMPLETED</b>
	08/05/17	Monday	Reporting at office with all photocopies of Documents. Overview to Company Profile and Total Internship schedule.
	09/05/17	Tuesday	Application development in JAVA –understanding JDK, JRE, JVM, WALK: Contest on - Data types, Conditionals statements, Loops, Arrays - 2 to 4 Problems, CRAWL: Hands On – Data types, Conditionals statements, Loops, Arrays - 6 to 8 Problems
	10/05/17	Wednesday	Concepts – String Class and handling Unicode characters, Comparing Strings, Concatenation of Strings, Substring. Concepts – String Buffer, String Builder and String Tokenize. CRAWL: Hands On – String Class - 6 to 8 Problems.
	11/05/17	Thursday	Concepts - Properties Class, Comparator and Comparable. Concepts – Exception handling, try-catch, nested exceptions, finally, throw, throws. CRAWL: mini-app using Collections WALK: Contest on – Collections - 4 to 6 Problems
	12/05/17	Friday	Concepts – Classes & Objects, Real world connections Concepts - Inheritance (IS-A), Relationships & Collaboration (HAS-A), Polymorphism (Overloading and Overriding), Abstraction (Interface & Abstract Class), Encapsulation (Packages & Access modifiers) Concepts -static, final, super & this keywords.

<b>2<sup>nd</sup> WEEK</b>	<b>DATE</b>	<b>DAY</b>	<b>NAME OF THE TOPIC/MODULE COMPLETED</b>
	15/05/17	Monday	Holiday
	16/05/17	Tuesday	Holiday
	17/05/17	Wednesday	Files & I/O Streams. Files & Streams (About all I/O streams with various operations) Packages & Importance of packages.
	18/05/17	Thursday	Web Application development using Servlets Introduction of Servlet API, Web Server (Tomcat 8.0) Configuration), Steps to Creation & Execution of Servlets using Tomcat server. Installation of apache software, programs on servlets (Home Page, Login, Registrations and update profile)
	19/05/17	Friday	Installation of MYSQL Data Base & Data Base Creation & Tables in SQL Yog. JDBC examples on types, stages, statement and prepared statement.
	20/05/17	Saturday	Guest lecture on Web application security assessment

<b>3<sup>rd</sup> WEEK</b>	<b>DATE</b>	<b>DAY</b>	<b>NAME OF THE TOPIC/MODULE COMPLETED</b>
	22/05/17	Monday	HTML, HTML-5- validations & CSS Various tags of html with examples, different ways, Creation of Web Pages using html.
	23/05/17	Tuesday	Introduction of JSP technology, Importance of JSP over Servlets, JSP Life Cycle methods, Execution flow of JSP pages, Various tags in JSP.
	24/05/17	Wednesday	JSP Life Cycle methods, execution flow of JSP pages, Various tags in JSP
	25/05/17	Thursday	Scripting Tags, Directive Tags, Action Tags with all possible attributes
	26/05/17	Friday	Scripting tags, directive tags, actions tags with all possible attributes
	27/05/17	Saturday	Guest lecture on Manual testing and automation testing

<b>4<sup>th</sup> WEEK</b>	<b>DATE</b>	<b>DAY</b>	<b>NAME OF THE TOPIC/MODULE COMPLETED</b>
	29/05/17	Monday	JDBC introduction of JDBC API, types of drivers, how to connect with DB using jdbc drivers
	30/05/17	Tuesday	Installation of apache software, programs on servlets
	31/06/17	Wednesday	Working with jsp and also working with jsp grid view.
	1/06/17	Thursday	Designing of your own web application
	2/06/17	Friday	Checked backend coding
	5/06/17	Monday	Hosting the sample in real server



## **INTRODUCTION:**

The purpose of this project is to publish journals in online otherwise in offline through our website in easy way. Aditya journals (AJ) is an international journal intended for professional and researchers in all fields of computer science and electronics. AJ publishes research articles and reviews within the whole field engineering science and technology. The publications of papers are selected through double peer reviewed to ensure originality, relevance, and readability. The articles published in our journal can be accessed online. It contains the strong editorial board which contains eminent personalities and the rapid, quality and quick review processing.

AJ is a highly-selective, peer-reviewed journal. The journal has many benefits all geared towards strengthening research skills and advancing academic careers. Journal publications are a vital part of academic career advancement.

Our aim is to promote high quality theoretical and empirical research relating to global business opportunities and threats. The journal will present new methods and models of organizational diagnosis. All articles published in international journal are undergoes a rigorous, peer review process by leading experts. When the review process is complete, the editor will inform the author about the result of evaluation process. Based on each reviewed evaluation, the editor will accept the manuscript for publication or will reject it.

We have done a module named “Call For Paper”. Here it contains the whole information about last date for submission, notification, Acceptance. From this website user can publish his journals, thesis etc., through online as well offline.

User can publish his journals through online means, he can publish paper by filling all fields which are available in the site, and when he click upload, his details and paper/ journal will be uploaded automatically.

User can publish his journal through offline, which means that the user will send a mail directly to the website, so that the eminent personalities which are connected to our site will approve the result whether the user paper/ journal is approved to available in the site or not.

If the user is approved by site, then the user can publish his journal/ paper for free of cost for about six months from the website hosted, later site will assign the payment for the user. User only has to pay for E-certificate, Hard copy certificates while there is no fees option.

User published papers, journals, thesis etc., are evaluated peer-to-peer by the eminent personalities. We display all the published papers in our website for the other user who want to gather/ know the updated information through this journals. By this other persons also can use this information for their use and implementation of projects and further more study. This website is very useful for sharing and escalating the knowledge among people.

## **1.1MODULES:**

1. Home
2. Call for paper
3. Guidelines
4. Overview

## 2.ANALYSIS:

### 2.1 REQUIREMENT ANALYSIS:

The purpose of this project is to upload books in online more efficiently and effectively to satisfy every client on authors disk.

To Develop a College Internal Research Papers Publishing Journals website with can use publish Papers, Articles, Conferences took in College **International Journal Aditya College(IJAC)** is a quarterly, open access, multidisciplinary, peer reviewed, online and fully refereed international journal. We primarily aim to bring out the research talent and the works done by scientists, academia, engineers, practitioners, scholars, post graduate students of engineering, science and other related subjects so that fellow researchers can get benefit from the research done. This journal aims to cover the scientific research in a broader sense and not just publishing a niche area of research facilitating researchers from various verticals to publish their papers. Each Research paper is evaluated in depth by IJAC reviewer panel that ensures the novelty in each research manuscript being published.

### 2.2 Feasibility Study

Preliminary investigation examine project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resource and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- ✓ Technical Feasibility
- ✓ Operation Feasibility
- ✓ Economic Feasibility

#### Technical Feasibility:

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- ✓ Does then necessary technology exist to do what is suggested?
- ✓ Does the proposed equipment have the technical capacity to hold the data required to use the new system?
- ✓ Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- ✓ Can the system be upgraded if developed?
- ✓ Are there technical guarantees of accuracy, reliability, ease of access and data security?



Earlier no system existed to cater to the needs of ‘Secure Infrastructure Implementation System’. The current system developed is technically feasible. It is a web based user interface for audit workflow at NIC-CSD. Thus it provides an easy access to the users. The database’s purpose is to create, establish and maintain a workflow among various entities in order to facilities all concerned users in their various capacities or roles. Permission to the users would be granted based on the roles specified. Therefore, it provides the technical guarantee of accuracy, reliability and security. The software and hardware requirement for the development of this project are not many and are already available in-house at NIC or are available as free as open source. The work for the project is done with the current equipment and existing software technology. Necessary bandwidth exists for providing a fast feedback to the users irrespective of the number of users using the system.

### **Operational Feasibility**

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization’s operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following:

- ✓ Is there sufficient support for the management from the users?
- ✓ Will the system be used and work properly if it being developed and implement?
- ✓ Will there be any resistance from the user that will undermine the possible applications benefits?
- ✓ This system is targeted to be in accordance with the above-mentioned issues. Beforehand, the management is issues and user requirements have
- ✓ been taken into consideration. so there is to question of resistance from the users that can undermine the possible applications benefits.

The well-planned designed would ensure the optimal utilization of the computer resource and would help in the improvement of performance status.

### **Economic Feasibility**

A system can be developed technically and the will be used if installed must still be a good investment for the organization. In the economic feasibility, the development cost in creating the system is evaluated against the ultimate benefits derived from the new system. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies available at NIC, there is nominal expenditure and economic feasibility for certain.

### **3. SOFTWARE REQUIREMENTS SPECIFICATIONS**

#### **3.1 System configurations**

The software requirement specification can produce at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by established a complete information description, a detailed functional description, a representation of system behaviour, and indication of performance and design constrain, appropriate validate criteria, and other information pertinent to requirements.

#### **3.2 Software requirements:**

Operating System	: Windows 7
Front End	: JSP
Back End	: MySQL
Web Server	: APACHE Tomcat

#### **3.3 Hardware Requirements:**

Processor	: Intel core i3
Memory	: 4GB RAM
Hard Disk	: 500GB

## 4. TECHNOLOGY

### 4.1 JAVA

Java is a general purpose, high-level programming language developed by Sun Microsystems. The Java programming language was developed by a small team of engineers, known as the *Green Team*, who initiated the language in 1991.

The Java language was originally called *OAK*, and at the time it was designed for handheld devices and set-top boxes. Oak was unsuccessful and in 1995 Sun changed the name to Java and modified the language to take advantage of the burgeoning World Wide Web.

Later, in 2009, Oracle Corporation acquired Sun Microsystems and took ownership of two key Sun software assets: Java and Solaris.

Today the Java platform is a commonly used foundation for developing and delivering content on the web. According to Oracle, there are more than 9 million Java developers worldwide and more than 3 billion mobile phones run Java.

In 2014 one of the most significant changes to the Java language was launched with Java SE 8. Changes included additional functional programming features, parallel processing using streams and improved integration with JavaScript. The 20th anniversary of commercial Java was celebrated in 2015.

Java is defined as an object-oriented language similar to C++, but simplified to eliminate language features that cause common programming errors. The source code files (files with a *.java* extension) are compiled into a format called *bytecode* (files with a *.class* extension), which can then be executed by a Java interpreter. Compiled Java code can run on most computers because Java interpreters and runtime environments, known as *Java Virtual Machines* (VMs), exist for most operating systems, including UNIX, the Macintosh OS, and Windows. Bytecode can also be converted directly into machine language instructions by a just-in-time compiler (JIT). In 2007, most Java technologies were released under the GNU General Public License.

java is a general purpose programming language with a number of features that make the language well suited for use on the World Wide Web. Small Java applications are called Java applets and can be downloaded from a Web server and run on your computer by a Java-compatible Web browser.

Applications and websites using Java will not work unless Java is installed on your device. When you download Java, the software contains the Java Runtime Environment (JRE) which is needed to run in a Web browser. A component of the JRE, the Java Plug-in software allows Java applets to run inside various browsers.

## 4.2 HTML

HTML stands for Hyper Text Markup Language.

HTML is the most widely used language to write web pages.

Hypertext refers to the way in which web pages are linked together. Thus, the link available on a webpage is called Hypertext.

As its name suggests, HTML is a Markup language which means you use HTML to simply mark-up a text document with tags that tell a web browser how to structure it to display.

HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers.

HTML is a markup language and makes use of various tags to format the content. These tags are enclosed within angle braces '<tag name>'. Except some tags, most of the tags have their corresponding closing tags.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects, such as interactive form, may be embedded into the rendered page. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as `<img />` and `<input />` introduce content into the page directly. Others such as `<p>...</p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript which affect the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), maintainer of both the HTML and the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

## 4.3 CSS

CSS means “Cascading Style Sheets”.

CSS was invented by Harken Whim Lie on October 10, 1994 and maintained through a group of people within the W3C called the CSS working group.

It is a simple language intended to simplify the process of making web pages presentable. It handles the part of Look and Feel of webpage.

**CSS** is a style sheet language used for describing the presentation of a document written in a mark-up language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications.

CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, and enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate. CSS file, and reduce complexity and repetition in the structural content.

Separation of formatting and content makes it possible to present the same mark-up page in different styles for different rendering methods, such as on-screen, in print, by voice, and on Braille-based tactile devices. It can also display the web page differently depending on the screen size or viewing device. Readers can also specify a different style sheet, such as a CSS file stored on their own computer, to override the one the author specified.

Changes to the graphic design of a document can be applied quickly and easily, by editing a few lines in the CSS file they use, rather than by changing mark up in the documents.

The CSS specification describes a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called *cascade*, priorities are calculated and assigned to rules, so that the results are predictable.

You can control the colour of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colours are used, layout designs, variations in display for different devices and screen sizes as well as a variety of other effects.

CSS provides powerful control over the presentation of an HTML document, it is combined with the markup languages HTML OR XHTML.

## **Advantages of CSS:**

### **CSS saves time:**

It can be written once and can be reused any number of times in building pages.

### **Easy maintenance:**

To make a global change, simply change the style and all elements in the webpages update automatically.

### **Platform independence:**

The script offers consistent platform independence and can support latest browsers also.

## **4.4 JSP**

Java Server Pages (JSP) is a technology released in 1999 by Sun Microsystems, JSP is similar to PHP and ASP, but it uses the Java Programming language.

Java Server Pages (JSP) is a server-side programming technology that enables the creation of dynamic, platform-independent method for building web-based applications.

JSP have access to the entire family of java APIs, including the JDBC API to access enterprise databases.

This helps developers insert java code in HTML pages by making use of special JSP tags, most of which start with <% and end with %>.

Java Server Pages often serve the same purpose as programs implemented using the Common Gateway Interface (CGI). But JSP offers several advantages in comparison with the CGI.

Performance is significantly better because JSP allows embedding Dynamic Elements in HTML Pages itself instead of having separate CGI files.

JSP are always compiled before they are processed by the server unlike CGI/Perl which requires the server to load an interpreter and the target script each time the page is requested.

Java Server Pages are built on top of the Java Servlets API, so like Servlets, JSP also has access to all the powerful Enterprise Java APIs, including JDBC, JNDI, EJB, JAXP, etc.

JSP pages can be used in combination with servlets that handle the business logic, the model supported by Java servlet template engines.

## **Servlets:**

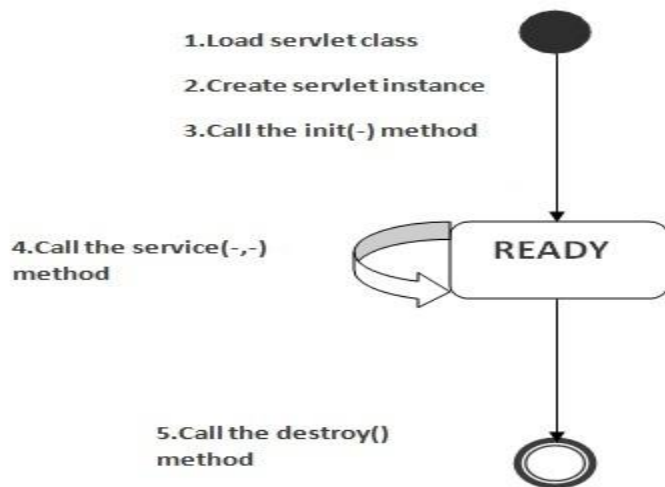
A Servlet is an object that receives a request and generates a response based on that request. The basic Servlet package defines Java objects to represent servlet requests and responses, as well as objects to reflect the servlet's configuration parameters and execution environment. The package `javax.servlet.http` defines HTTP specific subclasses of the generic servlet elements, including session management objects that track multiple requests and responses between the web server and a client. Servlets may be packaged in a WAR file as a web application.

Servlets can be generated automatically from Java Server Pages by the Java Server Pages compiler. The difference between servlets and JSP is that servlets typically embed HTML inside Java code, while JSPs embed Java code in HTML. While the direct usage of servlets to generate HTML has become rare, the higher level MVC web framework in Java EE still explicitly uses the servlet technology for the low level request/response handling via the Faces servlets. A somewhat older usage is to use servlets in conjunction with JSPs in a pattern called Model 2, which is a flavor of the model–view–controller.

## **Life cycle of servlet:**

The web container maintains the life cycle of a servlet instance. Let's see the life cycle of the servlet:

- Servlet class is loaded.
- Servlet instance is created.
- `init` method is invoked.
- Service method is invoked.
- Destroy method is invoked.



As displayed in the above diagram, there are three states of a servlet: new, ready and end. The servlet is in new state if servlet instance is created. After invoking the init() method, Servlet comes in the ready state. In the ready state, servlet performs all the tasks. When the web container invokes the destroy() method, it shifts to the end state.

### 1. Servlet class is loaded:

The class loader is responsible to load the servlet class. The servlet class is loaded when the first request for the servlet is received by the web container.

### 2. Servlet instance is created

The web container creates the instance of a servlet after loading the servlet class. The servlet instance is created only once in the servlet life cycle.

### 3. init method is invoked

The web container calls the init method only once after creating the servlet instance. The init method is used to initialize the servlet. It is the life cycle method of the javax.servlet.Servlet interface. Syntax of the init method is given below:

**Public void** init (ServletConfig config) **throws** ServletException

### 4. Service method is invoked

The web container calls the service method each time when request for the servlet is received. If servlet is not initialized, it follows the first three steps as described above then calls the service method. If servlet is initialized, it calls the service method. Notice that servlet



is initialized only once. The syntax of the service method of the Servlet interface is given below:

**public void** service(ServletRequest request, ServletResponse response) **throws**  
Servlet Exception IOException

### **5. Destroy method is invoked**

The web container calls the destroy method before removing the servlet instance from the service. It gives the servlet an opportunity to clean up any resource for example memory, thread etc. The syntax of the destroy method of the Servlet interface is given below:

**Public void** destroy ()  
Interfaces in javax.servlet package

### **Filter:**

A filter is an object that performs filtering tasks on either the request to a resource (a servlet or static content), or on the response from a resource, or both.

### **Filter chain:**

A Filter Chain is an object provided by the servlet container to the developer giving a view into the invocation chain of a filtered request for a resource.

### **Servlet:**

Defines methods that all servlets must implement.

### **ServletConfig:**

A servlet configuration object used by a servlet container to pass information to a servlet during initialization.

Classes in javax.servlet package:

### **ServletConfigAttributeEvent:**

This is the event class for notifications about changes to the attributes of the servlet context of a web application.

### **ServletContextEvent:**

This is the event class for notifications about changes to the servlet context of a web application.

### **ServletInputStream:**

Provides an input stream for reading binary data from a client request, including an efficient readLine method for reading data one line at a time.

**Interface in javax.servlet.http package:**

**HTTPSessionActivationListener:**

Objects that are bound to a session may listen to container events notifying them that sessions will be passivity and that session will be activated.

**HttpSessionAttributeListener:**

This listener interface can be implemented in order to get notifications of changes to the attribute lists of sessions within this web application.

**HttpSessionListener:**

Implementations of this interface are notified of changes to the list of active sessions in a web application.

Classes in javax.servlet.http package:

**Cookie:**

Creates a cookie, a small amount of information sent by a servlet to a Web browser, saved by the browser, and later sent back to the server.

**HttpServletResponseWrapper:**

Provides a convenient implementation of the HttpServletResponse interface that can be subclassed by developers wishing to adapt the response from a Servlet.

**HttpSessionBindingEvent:**

Events of this type are either sent to an object that implements HttpSessionBindingListener when it is bound or unbound from a session, or to a HttpSessionAttributeListener that has been configured in the deployment descriptor when any attribute is bound, unbound or replaced in a session.

## **4.5 Overview of JAVA&JSP**

### **Overview of java**

Java programming language was originally developed by Sun Microsystems which was initiated by James Gosling and released in 1995 as core component of Sun Microsystems' Java platform (Java 1.0 [J2SE]).

The latest release of the Java Standard Edition is Java SE 8. With the advancement of Java and its widespread popularity, multiple configurations were built to suit various types of platforms. For example: J2EE for Enterprise Applications, J2ME for Mobile Applications.

The new J2 versions were renamed as Java SE, Java EE, and Java ME respectively. Java is guaranteed to be **Write Once, Run Anywhere**.

Java is –

- **Object Oriented** – In Java, everything is an Object. Java can be easily extended since it is based on the Object model.
- **Platform Independent** – Unlike many other programming languages including C and C++, when Java is compiled, it is not compiled into platform specific machine, rather into platform independent byte code. This byte code is distributed over the web and interpreted by the Virtual Machine (JVM) on whichever platform it is being run on.
- **Simple** – Java is designed to be easy to learn. If you understand the basic concept of OOP Java, it would be easy to master.
- **Secure** – With Java's secure feature it enables to develop virus-free, tamper-free systems. Authentication techniques are based on public-key encryption.
- **Architecture-neutral** – Java compiler generates an architecture-neutral object file format, which makes the compiled code executable on many processors, with the presence of Java runtime system.
- **Portable** – Being architecture-neutral and having no implementation dependent aspects of the specification makes Java portable. Compiler in Java is written in ANSI C with a clean portability boundary, which is a POSIX subset.
- **Robust** – Java makes an effort to eliminate error prone situations by emphasizing mainly on compile time error checking and runtime checking.
- **Multithreaded** – With Java's multithreaded feature it is possible to write programs that can perform many tasks simultaneously. This design feature allows the developers to construct interactive applications that can run smoothly.
- **Interpreted** – Java byte code is translated on the fly to native machine instructions and is not stored anywhere. The development process is more rapid and analytical since the linking is an incremental and light-weight process.
- **High Performance** – With the use of Just-In-Time compilers, Java enables high performance.
- **Distributed** – Java is designed for the distributed environment of the internet.

- **Dynamic** – Java is considered to be more dynamic than C or C++ since it is designed to adapt to an evolving environment. Java programs can carry extensive amount of run-time information that can be used to verify and resolve accesses to objects on run-time.

## Overview of JSP

Java Server Pages (JSP) is a technology for developing Webpages that supports dynamic content. This helps developers insert java code in HTML pages by making use of special JSP tags, most of which start with <% and end with %>.

A Java Server Pages component is a type of Java servlet that is designed to fulfill the role of a user interface for a Java web application. Web developers write JSPs as text files that combine HTML or XHTML code, XML elements, and embedded JSP actions and commands.

Using JSP, you can collect input from users through Webpage forms, present records from a database or another source, and create Webpages dynamically.

JSP tags can be used for a variety of purposes, such as retrieving information from a database or registering user preferences, accessing JavaBeans components, passing control between pages, and sharing information between requests, pages etc.

## 4.2 DATABASE

A database is a separate application that stores a collection of data. Each database has one or more distinct APIs for creating, accessing, managing, searching and replicating the data it holds.

Microsoft SQL server is a Structured Query Language (SQL) base, client/server relational database. Each of these terms describes a fundamental part of the architecture of SQL server.

A database is similar to a data file in that it is storage place for data. Like a data file, a database does not present information directly to a user, the user runs an application that accesses data from the database and presents it to the users in an untestable format. A database typically has two components: the files holding the physical database access data.

The DBMS is responsible for enforcing database structure, including:

Maintaining the relationships between data in the database.

Ensuring that data is stored correctly, and the rules that defining data relationships are not violated.

Recovering all data to a point of known consistency in case of system failures.

## **Relational Database**

There are different ways to organize data in a database but relational databases are one of the most effective. Relational database systems are an application of mathematical set theory to the problem of effectively organizing data. In a relational database is collected into tables called relations in relation theory.

When organizing data into tables, you can usually find many different ways to define tables. Relational database theory defines a process, normalization, which ensures that the set of tables you define will organize our data effectively.

### **Client/Server**

In Client/Server system the server is a relatively large computer in a central location that manages a resource used by many people. When individuals needs to use the resource, they connect over the network from their computers, or clients, to the server.

Examples of servers are: In Client/Server database architecture, the database files and DBMS software resides on a server. A communications component is provided so applications can run on separate clients and communicate to the database server over a network. The SQL server communication component also allows communication between an application running on the server and SQL server.

Server applications are usually capable of working with several clients at the same time. SQL server can work with thousands of client applications simultaneously. The server has features to prevent the logical problems that occur if a user.

While SQL server is design to work as a server in a Client/Server network, it is also capable of working as a stand-alone database directly on the client. The scalability and ease of use features of SQL server allows it to work efficiently on a client without consuming too much resource.

### **Structured Query Language (SQL)**

To work with data in a database, you must use a set of commands and statements (language) defined by the DBMS software. There are several different languages that can be used with relational database; the most common is SQL. Both the American national standards institute (ANSI) and the International Standards Organization (ISO) has defined standards for SQL.

## **SQL Server Features**

Microsoft SQL server supports a set of features that result in the following benefits:

Ease of installation, deployment, and use SQL server includes a set of administrative and development tools that improve your ability to install, deploy, manage, and use SQL server across several sites.

### **Scalability**

The same database engine can be used across platform ranging from laptop SS computers running Microsoft Windows 95/98 to large multiprocessor servers running Microsoft Windows NT , Enterprise Edition.

**Database**

A database in Microsoft SQL Server consists of a collection of tables that contain data and other objects such as views, indexes, stored procedures, and triggers defined to support activities performed with the data. The data stored in a database is usually related to a particular subject or process, such as inventory information for a manufacturing warehouse.

SQL server can support many databases, and each database can store either interrelated data or data unrelated to that in the other databases. For example, a server can have one database that stores personal data and another that stores product-related data. Alternatively one database can store current customer order data, and another, related database can store historical customer orders that are used for yearly reporting. Before you create a database, it is important to understand the parts of a database and how to design these parts ensure that the database performs well after it is implemented.

## Coding

### 5.1 Call For Paper:

```
<body>
<form action="addnotification.jsp">

<center><b><h2>call for paper</h2></b></center>
<table align="center" table border="1">
<tr>
    <td><b>submission open for</b></td>
    <td><input type="text" name="name" size="30"></td>
</tr>
<tr>
    <td><b>last date of submission</b></td>
    <td><input type="text" name="name" size="30"></td>
</tr>
<tr>
    <td><b>acceptance of notification</b></td>
    <td><input type="text" name="name" size="30"></td>
</tr>
<tr>
    <td><b>last date of publication</b></td>
    <td><input type="text" name="name" size="30"></td>
</tr>
<tr>
    <td><b>submit offline</b></td>
    <td><input type="text" value="adityajournals@gmail.com" size="30"></td>
</tr>
<tr>
    <td colspan="2"><center><center><input type="submit"
value="ADD"></center></center></td>
</tr>
</form>
</body>
```

## 5.2 Add Notification:

```
<% @ page import="java.sql.*"%>
<%
String Submissionopenfor=request.getParameter("Submissionopenfor");
String Lastdateofsubmission=request.getParameter("LastdateofSubmission");
String Acceptancenotification=request.getParameter("Acceptancenotification");
String Lastdateofpublication=request.getParameter("Lastdateofpublication");
class.forName("com.mysql.jdbc.Driver");
Connection
con=DriverManager.getConnction("jdbc:mysql://localhost:3306/journal","root","root");
Statement st=con.createStatement();
int i=st.executeUpdate("insert into cfp
values('"+Submissionopenfor+"','"+Lastdateofsubmission+"','"+Acceptancenotification+"','"+
Lastdateofpublication+"')");
if(i>0){
    out.println("inserted values in table");
}
%>
```

## 6.3 Contactform

```
<html>
<head>
<title>register</title>
</head>
<body bgcolor="blue">
<form action="profile2.php" method="post">
<div style=height:100%;width:500px;float:left>
<imgsrc="D:\aa.JPG"width="350"height="350"align="left"/>
</div>
<center><h1><u>CONTACTFORM</u></h1>
firstname:<input type="text" name="fname" size="25"><br><br>
lastname:<input type="text" name="lname" size="25"><br><br>
Email id:<input type="text" name="uname" size="25"><br><br>
Phonenumber:<input type="text" name="mbl" size="25"><br><br>
Message:<input type="message" rows="19" cols="19"/><br><br>
<input type="submit" values="submtform"/>
</center>
</form>
</body>
</html>
```



## **6. TESTING**

### **6.1 INTRODUCTION:**

Testing is a process used to help identify the correctness, completeness and quality of developed computer software. With that in mind, testing can never completely establish the correctness of computer software. There are many approaches to software testing from using tools to automated testing, but effective testing of complex products is essentially a process of investigation, not merely a matter of creating and following rote procedure.

One definition of testing is "the process of questioning a product in order to evaluate it", where the "questions" are things the tester tries to do with the product, and the product answers with its behaviour in reaction to the probing of the tester. Although most of the intellectual processes of testing are nearly identical to that of review or inspection, the word testing is connoted to mean the dynamic analysis of the product putting the product through its paces.

The quality of the application can and normally does vary widely from system to system but some of the common quality attributes include reliability, stability, portability, maintainability and usability. Refer to the ISO standard ISO 9126 for a more complete list of attributes and criteria.

1. Testing is a process of executing a program with the intent of finding an error.
2. A good test case is one that has a high probability of finding an as yet undiscovered error.
3. A successful test is one that uncovers an as yet undiscovered error.

Testing should systematically uncover different classes of errors in a minimum amount of time and with a minimum amount of effort. A secondary benefit of testing is that it demonstrates that the software appears to be working as stated in the specifications. The data collected through testing can also provide an indication of the software's reliability and quality. But, testing cannot show the absence of defect -- it can only show that software defects are present.

### **6.2 TYPE OF TESTING:**

#### **Manual Testing**

Manual testing includes testing a software manually, i.e., without using any automated tool or any script. In this type, the tester takes over the role of an end-user and tests the software to identify any unexpected behaviour or bug. There are different stages for manual testing such as unit testing, integration testing, system testing, and user acceptance testing.

Testers use test plans, test cases, or test scenarios to test a software to ensure the completeness of testing. Manual testing also includes exploratory testing, as testers explore the software to identify errors in it.

#### White-Box Testing:

White-box testing is the detailed investigation of internal logic and structure of the code. White-box testing is also called **glass testing** or **open-box testing**. In order to perform **white-box** testing on an application, a tester needs to know the internal workings of the code. The tester needs to have a look inside the source code and find out which unit/chunk of the code is behaving inappropriately.

The following table lists the advantages and disadvantages of white-box testing.

Advantages	Disadvantages
As the tester has knowledge of the source code, it becomes very easy to find out which type of data can help in testing the application effectively. It helps in optimizing the code. Extra lines of code can be removed which can bring in hidden defects. Due to the tester's knowledge about the code, maximum coverage is attained during test scenario writing.	Due to the fact that a skilled tester is needed to perform white-box testing, the costs are increased. Sometimes it is impossible to look into every nook and corner to find out hidden errors that may create problems, as many paths will go untested. It is difficult to maintain white-box testing, as it requires specialized tools like code analysers and debugging tools.

**Unit testing** is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. **Unit testing** can be done manually but is often automated.

### 6.3 Test cases

The purpose of a test case is to describe how you intend to empirically verify that the software being developed conforms to the specifications. In other words, you need to be able to show that it can correctly carry out its intended functions. The test case should be written with enough clarity and detail that it could be given to an independent tester and have the tests properly carried out.

## TEST CASE DESCRIPTION:

A test case contains all the information necessary to verify some particular functionality of the software:

### *Purpose:*

Describe the features of the software to be tested, and the particular behaviour being verified by this test.

### *Requirement Traceability:*

Across reference to the numbers of the requirements (in the system specification) which are being verified in this test.

### *Setup:*

Describe all the steps necessary to setup the software environment necessary to carry out the test.

### *Test Data:*

Write the actual input data to be provided and the expected output for your actual working product. You **must** provide the actual input data values, not just a description. For example, "Enter a new wholesale price" is wrong. "Enter a wholesale price of \$23.50" is correct. For the expected results you must provide the actual values not just a description. For example, "The updated retail price is displayed" is wrong. "The retail price of \$49.99 is displayed" is correct.

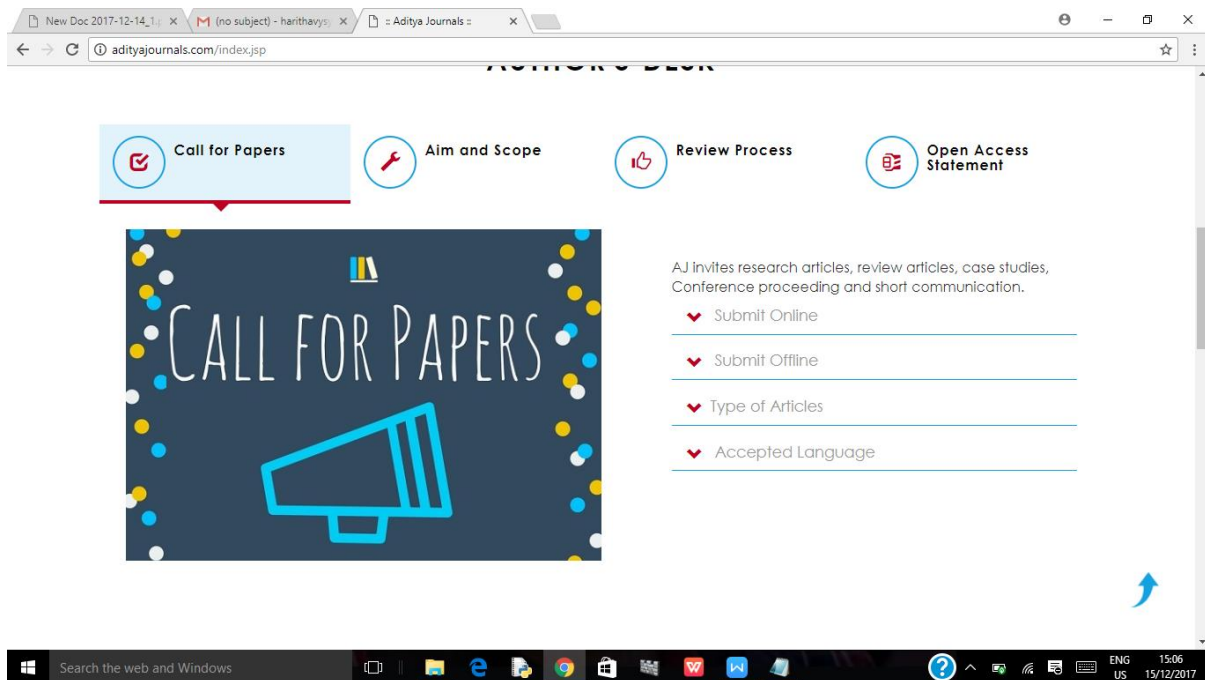
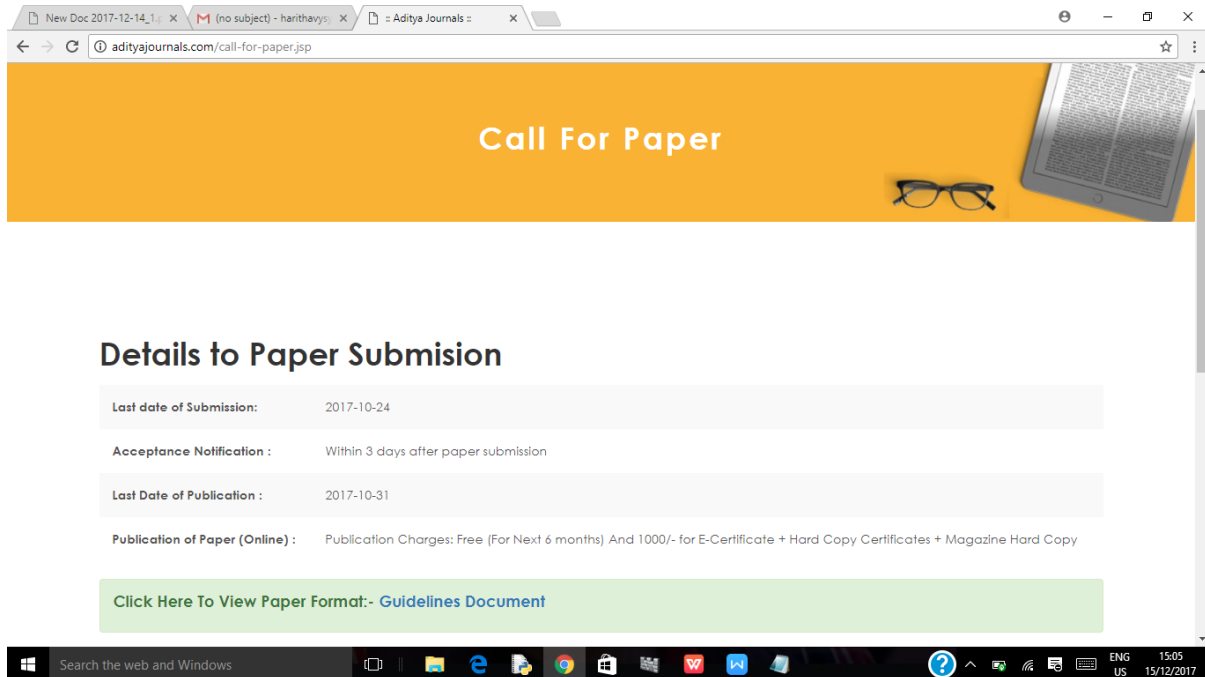
Be sure to include any manual calculations necessary to determine the expected outputs. (For example, if the program converts Fahrenheit temperature to Celsius, show the hand computations you did using the conversion formulas to arrive at the expected results).

Often the test data can be shown in tabular form, with a column of input items and the corresponding column of expected outputs. If the test input is contained in an external data file, you can provide the file name and have the file contents listed on a separate page.

**Uploading paper in Website:**

<b>Test</b>	<b>Input</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Pass</b>
1	Source field are blank and remaining fields are valid	Source Field is empty, enter data message is Displayed	Error message is Displayed	Pass
2	Destination field is blank and remaining fields are valid	Destination field name field is empty, enter data message is Displayed	Error message is Displayed	Pass
3	Time field is blank and remaining fields are valid	Time field is empty, enter data message displayed	Error message is displayed	Pass
4	Date field is blank and remaining fields are valid	Date field is empty, enter data message is Displayed	Date field cannot be empty	Pass
5	Fair estimate field is blank and remaining fields are valid	Fair estimate field is empty, enter data message is Displayed	Fair estimate field cannot be Empty	Pass
6	Fair estimate field is showing the cost estimate	Fair estimate field is showing integer value which is calculated for total distance	Estimate Calculated Successful	Pass

## 7. SCREENS



## CONTACTFORM

firstname

lastname

Email id

Phonenumber

Message

## **8. CONCLUSION:**

In our project users can easily publish their papers. This is a useful website for the people who want to share their knowledge with others. Users can choose different format to publish their papers either in offline or online, by paying the least charges for E-Certificate, Hard copy certificate and Magazine hard copy. User can ask their queries through an E-mail, and clear them. Published material is freely available to all interested online readers. At the same time, authors who published in Aditya Journals retain the copy right of their article.

## **9. BIBLIOGRAPHY**

The following books are referred during the analysis and execution phase of the project

### **REFERENCES:**

1. Robin Dewson "Beginning SQL Server Express for Developers: from novice to professional". Apress Media- 2007
2. James Gosling, Sun Microsystems "the complete reference on java". Seventh edition

### **WEBLINKS**

1. In order to learn about the required software to be used for the project we used,  
[www.wikipedia.org](http://www.wikipedia.org)
  2. Other than the text books mentioned above, we also referred for quick learning at  
[www.tutorialspoint.com](http://www.tutorialspoint.com)
- For standard information about the framework, we referred [www.w3schools.com](http://www.w3schools.com)