**Bike Store and Blog Project**

**1) Introduction:**

**a) Purpose.**

•online Bike and bike parts store that has listings of various bike along with their advantage and also consists of Bike service Registration.

•Online Bike Store and Blog Project is a combination of both sales and inventory management of the bike and bike parts.

• User can easily purchase bike or bike parts by using this system user does not have to come manually to shop to purchase the product.

•This system allows user to buy bike, bike parts and inventory online.

• System allow user to check various articles submitted by user and even comment on them. Credit card payment facility is available.

**b) Project Scope.**

•The visitor who visits the system must register himself by filling up personal details.

•After registration user can login to the system with his username and password in order to access the system

• User can check various bike listing and can view each bikes feature and check features of the bike as well as inventory parts, and accessories.

•User may select the product and can add the product to shopping cart and can make payment through credit cards by clicking on credit card payment option

• User must register himself for posting an article.

c) Glossary and Abbreviations (for any technical or non-technical terms.)

### OO SOFTWARE

### Object-oriented software means that we organize software as a collection of discrete objects that incorporate both data structure and behavior. The fundamental unit is the Object.

### CSS

“Cascading Style Sheet.” Code that tells [browsers](https://www.wholewhale.com/tips/developer-terms-glossary/#browser) how to display a webpage for the end user. This programming formats fonts, colors, and other visual elements. When redeveloping a website, editing these elements in the mockup/[GUI](https://www.wholewhale.com/tips/developer-terms-glossary/#gui) phase is much easier than changing in CSS.

**database:**  
A collection of information organized so that a computer application can quickly access selected information; it can be thought of as an electronic filing system. Traditional databases are organized by fields, records (a complete set of fields), and files (a collection of records). Alternatively, in a Hypertext database, any object (e.g., text, a picture, or a film) can be linked to any other object

CCM (Cyclomatic Complexity Metric)

Loc (line of code)

WMC (Weighted Methods per Class)

DIT (Depth of Inheritance Tree)

NOC (Number of Children)

CBO (Coupling Between Objects)

RFC (Response for Class)

LCOM (Lack of Cohesion of Methods)

**d) List of the System Stakeholders.**

User admin

Admin can add user and delete user

Admin can create category or delete category, category like add bike or part bike and can delete bike or part bike and can add article.

User

user can buy bike, bike parts and inventory online

and you can service bike or sell bike to another user

but you should be login or registration.

e) References.

1.IanSommerville,"SoftwareEngineering(9thEdition)",AddisonWesley,ISBN:978-0137035151,2010

2.BerndBruegge,AllenH.Dutoit,ObjectOrientedSoftwareEngineering:UsingUML,PatternsandJava,3rdEdition,PrenticeHall2009

3. Vlissides,J.,Helm,R.,Johnson,R.andGamma,E.,1995.

Designpattns:Elementsofreusableobject-orientedsoftware.

Reading:Addison-Wesley

2) What is a Software Requirement Pattern (SRP)? Demonstrate that concept by applying it while specifying the requirements of your system

Software requirement patterns (SRP)

•Fundamental principle: when specifying a system, a high proportion of requirements are recurrent and belong to a relatively small number of types Specially in the case of non functional requirements.

•Requirement pattern: an aproximation to the specification of a particular type of requirement SRP

Generates one or more requirements.

Applying:

• The system should be ease - to use

• And should be user - friendly - Easy to understand.

•This means that the user can understand the system during a specific time.

•The specific time are specified by the user

• All this requirement belong to the main requirement and the system should be easy.

8) What are the requirements discovery approaches that you’ll rely on? (give detailed examples.)

▪ The process of gathering information about the required and

existing systems and distilling the user and system requirements

from this information.

▪ Interaction is with system stakeholders from managers to

external regulators.

**Example:**

There are scenarios of how the system should be used:

• A description of the starting situation

• A description of the normal follow of event

• A description of what can go wrong

• Information about other concurrent activities.

• A description of the state when the scenario finishes

• Use-cases are scenarios based technique in UML

• A set of use cases should describe all possible interactions with the system.

**9) What are the requirements validation techniques that you’ll employ/use? (give detailed examples.)**

**1-Requirements reviews**

•Systematic manual analysis of the requirements.

**2-Prototyping**

•Using an executable model of the system to check requirements.

**3-Test-case generation**

•Developing tests for requirements to check testability.

For example in a Bike Store and Blog project, when a user sends to repair bike to the customer in order to fix it, you must verify the validity of report before fixing it.

Requirements error costs are high so validation is

very important

• Fixing a requirements error after delivery may cost up

to 100 times the cost of fixing an implementation error