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##### **SOFTWARE QUALITY AND TESTING [C]**

**Psychological Automation Quiz Test**

Find Same Mentality Team Member

**Submitted to:**

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**Phycological Quiz Automation Test**

Find Same Mentality Team Member

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**Chapter 1: Scope**

**1.1 Problem Statement**

In our daily office life most of the time we work as a team for a particular task. There are lots of teams working into the same project. Making a great team is a key feature for project success. We are not machines, we act based on our mentality. That's why making a team where everybody's mentality is the same, boosts our working experience. When it's come to choose the same mentality people there is only one way by taking a psychological test. We build our website based on this psychological test. Our test is a simple multiple choice quiz test. We have our different types of quiz questions. After finishing every quiz people get a score. It measures their mentality. Same score people are going to the same team. Our quiz questions are randomly selected for a participant. There is no wrong or right answer for each question. People can choose any answer. Based on that answer our system will select the next question automatically. Every question has .5 minute to answer. Participants can not skip any question. We store every participant score to their account.

**1.2 Our Solution VS Other Solution**

Most of the quiz tests are based on individual psychological tests online. Also you can give those tests for your own good . As an example, if somebody wants to buy a car but can not decide what colour he/she wants. Giving a psychological test decides the percentage for each choosing colour. This is the main difference between our website and other websites. We work on a particular team or group on our website. On our website we try to measure physiological scores for each team member. After this test they find out their comfortness to each other based on their psychological test score. If they are at the same comfortness level then they can work together or if not, they are not suitable for working together.

**1.3 Identification**

Our website is a simple blog type website but it's based on human physiological experience. We try to give this experience by taking a simple quiz. Where every answer is right.

**1.3.1 What is Phycological quiz test?**

There are many types of psychological tests based on particular topics. A participant can get a different score by attending different tests on different websites. Most websites can choose a quiz test for their psychological test. There are different kinds of quiz tests like true/false or multiple choice etc. On our website we use multiple choices for our quiz test. Make it simple we give a question set where each question has four different types of answer. Every question answered is right.

**1.3.2 Purpose/Objective**

At first we have our primary objective but if we set up our website on a large scale we can take action on our secondary purpose. Of Course we need a large setup like money or man power to do so. That's why we now focus on only the primary objective of our website.

**1.3.2.1 Primary Objective**

In the upper section we already describe our primary objective. We only focus on how to make a suitable group where every member has the same mentality. By doing so this boosts their work on any project. As we see most of the software related classes have group projects. When it's come to project sir randomly pickup any students to create a particular group. At first there is no problem but day by day they face problems with each other. They feel uncomfortable with each other. End of the day this creates a bad impact on their final project. But if there is a way to solve this problem by putting the same mentality student into the same group then its solve the problem. This is what our website does.

**1.3.2.2 Secondary Objective**

This is beneficial for every software company. We mostly follow our primary objective but this time we work with team members who develop software. It's much beneficial for new interns. When new interns come to work with the same project then their project manager makes each team by using our website.

**1.3.2.3 Justification**

List of benefits of our website

* Determine the presence of developmental delay, working disability or processing problems.
* Diagnose conditions such as attention deficit disorder, emotional disturbances (mood, anxiety disorders) or disruptive behavior disorders.
* Identify giftedness or to test intelligence among team members.
* Determine vocational ability (such as for career counseling for new interns). This helps to

work with comfortness.

* Track intellectual development.
* Determine socialization problems in the workplace.
* Educational purposes, such as to determine one’s strengths and weaknesses.
* For behavioral management.
* To find the best outcome from a running project.
* Increase better communication.

**1.4 System Overview**

When a participant comes to our website they need to subscribe before attending any kind of quiz test. Here subscribe means signup. Doing so they get a unique user id for themselves. Also they get a personal user account. They can edit or update this account. After finishing our quiz they get their score inside their account. Its store in their evaluation option. Every participant can take multiple quiz tests. They can also contact us by using contact form. There also room create options for project managers. There is no wrong answer. We collect each question from our survey report.

**1.5 Feature of this Project**

We use html5, css, javascript for frontend development and in the backend we use object oriented php and mysql databases. Our mysql database stored every data in our online server. Our online server name is Sites.Google.com. Our bandwidth speed is very good. We use google suite for storing our mysql database. Our website is user friendly and also responsive. So anybody can use it in a laptop or mobile or tablet computer. We also have our private domain name. We have our own blog site where users can comment on our post.

**1.6 Acronyms and Abbreviations**

Human Psychology- Human Psychology is the science of mind and human behavior. The general definition may refer to the profession, also referred to as clinical psychology; the scholarly discipline, referred to as academic psychology or educational psychology; or the scientific pursuit, research psychology.

Bandwidth- Bandwidth describes the maximum data transfer rate of a network or Internet connection. It measures how much data can be sent over a specific connection in a given amount of time.

G-suite- G Suite is a suite of cloud computing, productivity and collaboration tools, software and products developed by Google Cloud, first launched on August 28, 2006 as Google Apps for our Domain.

Sites.Google.com- Google Sites is a structured wiki- and Web page-creation tool offered by Google. The declared goal of Google Sites is for anyone to be able to create simple web sites that support collaboration between different editors.

Responsive- Responsive web design is an approach to web design that makes web pages render well on a variety of devices and window or screen sizes. Recent work also considers the viewer proximity as part of the viewing context as an extension for RWD.

**Chapter 2: Literature Review**

**2.1 Types of Online Quiz Test**

Online quizzes are the main tool for testing knowledge in eLearning. There are different types of online quizzes. Some types of Online Quiz tests described below.

**2.1.1 Multiple Choice**

Multiple choice questions are among the most effective ways to test learners on the content of an eLearning course. They present several possible answers to a question, only one of which is right.

**2.1.2 Multiple Response**

A multiple response question is similar to multiple choice, but users should select all of the correct answers from several alternatives. Questions of this type are more difficult than multiple choice because learners don’t know how many answers to choose.

**2.1.3 True or False**

One of the easiest ways to frame questions is to use a true or false format. Simply put, this involves making a statement to which the learner chooses whether it is true or false.

**2.1.4 Fill in the Blanks**

Fill-in-the-blank questions (aka completion questions) require that learners actually know the correct answer. Use fill-in-the-blank questions without giving hints and evaluate the user’s real knowledge.

**2.1.5 Matching**

A matching question can cover a large amount of content, also it is one of the most engaging types of questions for users. In a matching question, you provide several phrases or concepts along with several words, and the learner has to match each word with the appropriate phrase or concept.

**2.1.6 Sequence**

Sequence questions are the best option for establishing a timeline, arranging several things in ascending/descending order or illustrating a step-by-step process. You can list some events or statements and give learners an opportunity to put them in the correct order. It is effective when users need to remember pieces of information in a set, not separately.

**2.2 Benefits of Online Quiz Test**

Moving assessments online may seem a daunting task, however the benefits online testing provides should be a good motivator for most teachers and instructors. From being able to create banks of questions and tests, to instant calculation and analysis of results, to flexible delivery methods and enriched test material with the ability to add online links, documents, images and videos, the advantages are obvious.

Assessing student learning at regular intervals is crucial in any educational environment. Through regular testing and reviews, instructors and teachers can monitor the progress of each student and then offer further materials and assistance where required. Regular testing not only helps instructors identify areas of learning weakness within individual students, but can also enable them to enhance the content and delivery of their subject matter.

With online quizzes, besides regular academic tests we can also achieve some other benefits. We can test our psychology with personality quiz tests. We can also assess something related to research or projects with online quiz tests.

**2.3 Similar Types of Website**

In the market there are some similar websites which also provide quiz tests in different ways.

**2.3.1 Psychology Today**

Founded in 1967 by Nicolas Charney, [Ph.](https://en.wikipedia.org/wiki/Ph.D)D, its intent is to make psychology literature more accessible to the general public. The magazine focuses on behavior and covers a range of topics including psychology, neuroscience, relationships, sexuality, parenting, health (including from the perspectives of alternative medicine), work, and the psychological aspects of current affairs.

The magazine's website features [therapy](https://en.wikipedia.org/wiki/Therapist) and [health professionals](https://en.wikipedia.org/wiki/Health_professionals) directories and hundreds of [blogs](https://en.wikipedia.org/wiki/Blogs) written by a wide variety of psychologists, psychiatrists, social workers, medical doctors, anthropologists, sociologists, and science journalists.

**2.3.2 Psychcentral**

Psych Central is the Internet’s largest and oldest independent mental health online resource. Since 1995, this award-winning website has been run by mental health professionals offering reliable, trusted information and over 250 support groups to individuals struggling with a problem in their lives.

**2.3.3 123test**

The Big Five Personality Test is by far the most scientifically validated and reliable psychological model to measure personality. This free personality test is fast and reliable. It is also used commercially by psychologists, career counselors, and other professionals that conduct personality assessment. 123test is offering this type of free personality tests.

**2.4 Difference Between Our Website Vs Other Website**

List of difference between our website vs other website

* While ‘Psychological Quiz Test’ determines the presence of developmental delay, working disability or processing problems, other websites focus on personality test and other issues.
* ‘Psychological Quiz Test’ diagnoses conditions such as attention deficit disorder, emotional disturbances (mood, anxiety disorders) or disruptive behavior disorders. But other websites work for other psychological issues.
* Identify giftedness or to test intelligence among team members. Other websites does not work for finding these from a group.
* ‘Psychological Quiz Test’ determines vocational ability (such as for career counseling for new interns). This helps to work with comfortness. But other websites do not focus or offer this feature.
* ‘Psychological Quiz Test’ tracks intellectual development. Other websites do not track intellectual development.
* Our website determines socialization problems in the workplace. Other websites do not care much about socialization.
* Our website can be used for behavioral management. But other websites do not offer this.
* ‘Psychological Quiz Test’ can be used to find the best outcome from a running project. But other websites do not work for this.
* Our website can Increase better communication. But other websites do not work on this.

**Chapter 3:Software Requirement Specification**

**3.1 What is SRS**

A software requirements specification (SRS) is a detailed description of a software system to be developed with its functional and non-functional requirements. The SRS is developed based on the agreement between customer/participent and contractors. It may include the use cases of how the user is going to interact with the software system. The software requirement specification document is consistent with all necessary requirements required for project development. To develop the software system we should have a clear understanding of Software system. To achieve this we need continuous communication with customers/participent to gather all requirements.

A good SRS defines how the Software System will interact with all internal modules, hardware, communication with other programs and human user interactions with a wide range of real life scenarios. Using the Software requirements specification (SRS) document on QA lead, managers create a test plan. It is very important that testers must be cleared with every detail specified in this document in order to avoid faults in test cases and its expected results.

It is highly recommended to review or test SRS documents before start writing test cases and making any plan for testing.

**3.2 User Sope**

Here user means participent on our website.

* Sign up to our website to make their own account.
* Participants can logout from their account.
* Participants can see our blog post.
* Participants can comment on our blog post.
* Participants can attend any quiz test which we provide.
* Participants can edit/update their account.
* Project manager can create room.
* Participants can contact us using contact form.

**3.3 Moderator Scope**

* Moderator can login to their account.
* Moderators can edit/update their account.
* Moderators can replay participent messages.
* Moderators can edit blog posts.
* Moderator can publish a new post.
* Moderator can make quiz questions paper.
* Moderator can see participant information.

**3.4 Admin Scope**

* Admin can login to their account.
* Admin can edit/update their account.
* Admin can do all things which moderators can do.
* Admin can add another moderator.
* Admin can see moderator information.
* Admin can delete any question set.

**3.5 Constraints And Dependencies**

It will be a web based application and can be runned on any platform that has access to the internet(pc,laptop,mobile,etc). The internet connection is dependent on the application. Since the application fetches and retrieves data from the database or streams our video tutorial directly over the internet, it is crucial that there is an internet connection for the application to function. The designing criteria will be fulfilled by doing research on which will be the most user friendly way to design the application for the users.

**3.6 User Interface**

There are two types of user interface once for frontend and another one for backend. Frontend interface is a web template. Which is made with html5, css, javascript. It's also called the landing page for our website. In the landing page there are multiple options for participants. Participants can use the contact option to contact us. There is also a chat boat for instant replay.

**3.7 Admin Panel Interface**

In the backend user interface which is also called adminpanel. Admin Panel used to interact with the database. Admin panels make easy admin or moderator work.

**3.8 Communication Interface**

The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating system for the entire web application. Notification will be generated for helping users do all kinds of things in the system. Participants can use the contact form for contacting us. Also they can use an auto chat box for instant simple help.

**3.9 Project Position in the System Life Cycle**

Our website is the beginning of its life cycle. The software development model selected for the web development is a once-through (Scrum Model) strategy. Scrum borrows from Agile’s foundational beliefs and philosophy that teams and developers should collaborate heavily and daily. With Scrum, software is developed using an iterative approach in which the team is front and center experienced and disciplined workers on smaller teams might find the most success with this method, as it requires self-organization and self-management. Team members break down end goals into smaller goals at the beginning and work through them using fixed-length iterations—or sprints—to build software and showcase it often (which usually last two weeks). Meetings play an important role in the Scrum approach, and during each sprint, daily planning meetings and demos take place to follow progress and gather feedback. This incremental method promotes quick changes and development and adds value to complex projects. Scrum incorporates the structure and discipline of more traditional software development methodologies with the flexibility and iterative practices of modern Agile.

**3.10 Other non Functional Requirements**

Non functional means it does not directly impact the project but without those functions our project will be incomplete.

* Usability requirement: Usability requirements are documented expectations and specifications designed to ensure that a product, service, process or environment is easy to use.
* Serviceability requirement: Serviceability requirements are a set of conditions under which a foundation structure is considered to be useful.
* Manageability requirement: Manageability is the ability to manage the system to ensure the continued health of a system.
* Recoverability requirement: The recovery requirements are developed for the critical business processes identified in the business impact analysis. They help identify the resources that should be the focus of the recovery strategy since there is a cost involved with developing and implementing a mitigation or recovery strategy.
* Security requirement: A security requirement is a security feature required by system users or a quality the system must possess to increase the users trust in the system they use.
* Data Integrity requirement: Data Integrity is a critical requirement, which is defined in many ways. The Technopedia.com definition of Data Integrity linked here focuses on three key attributes: completeness, accuracy and consistency.
* Capacity requirement: Capacity requirements planning is the process by which a website figures out how much it needs to produce, and determines if it is capable of meeting those production goals.
* Availability requirement: For the purposes of this report an Availability Requirement is any requirement that is not a functional, data or process requirement concerned with defining the periods when the solution can be used.
* Scalability requirement: Scalability refers to the ability of the environment to meet the needs of an increasing number of users and external services in a way that is predictable in terms of performance.
* Interoperability requirement: A definition of interoperability is the ability to share information and services.
* Reliability requirement: A reliability requirement is a prediction or forecast of the performance of the product in the future. Reliability is usually defined as the probability that a product will operate without failure for a specified number of uses (transactions) or for a specified period of time.
* Maintainability requirement: Maintainability is the ease with which faults in a software system can be found and fixed. ELICITATION: Maintainability requirements address the user concern for how easy it is to upkeep and repair the system.

**3.11 Functional Requirement**

* Database Creation.
* Page Segment.
* Showing Quiz Set By Category.
* Adding Search Functionality with dynamic keyword auto suggestion.
* Dynamic Admin Template.
* Creating Session Class.
* Admin Login Authentication Admin Logout Option.
* Update Session Class.
* Showing Quiz Set Categories in Admin Panel.
* Add Quiz Set Categories from the Admin Panel.
* Update Quiz Set Categories from Admin Panel.
* Delete Quiz Set Categories from Admin Panel.
* Add Each Quiz Set from the Admin Panel.
* Showing Each Quiz Set in the Admin Panel.
* Showing Each Quiz Set in the Edit Page.
* Update Each Quiz Set Post with Condition.
* Delete Posts from Admin Panel Table for Logo, Title, Slogan.
* Update Logo, Title, Slogan.
* Update Social Media Option.
* Update Copyright Option.
* Dynamic Page Creation.
* Update Page Dynamically.
* Delete Page Dynamically.
* Showing Pages Dynamically.
* Dynamically Displaying Page.
* Each Quiz Set Title in header.php.
* Highlight Current Page or Menu Item.
* Contact Form Validation.
* Work With Contact Form Form Validation Details.
* Work With Inbox.
* Viewing Sent Messages.
* Reply messages.
* Send Messages to the Seen Box.
* Delete Messages from Seen Box.
* Notification for incoming messages.
* Adding Meta Keywords Tags to Individual Post.
* Add User to Assign Roles.
* Update User Profile.
* Display Showing User List.
* View User Details User Roles and Permissions.
* Role Based Access Control.
* Account activation by email, using PHPMailer PHP library.
* PHP Remember me functionality.
* Secured Password hashing with PHP hash algorithm.
* PHP Password Reset / recovery by email system.
* Protecting Against CSRF Attack with Unique Secured PHP Token Generation.
* Change Password using PHP.
* Deactivate Account using PHP.
* Automate Task with Cron Job using PHP.
* Blocking Bots and Spammers with reCAPTCHA.
* Constantly update mostly based on genuine requests from Participants.
* Truck Participant Mental recorded based on their score.
* Set a remainder function.
* Sorting function create (lowest to highest).
* Create an user friendly Phycological Quiz Test template.
* Make our website responsive.

**3.12 Software Quality Attribute**

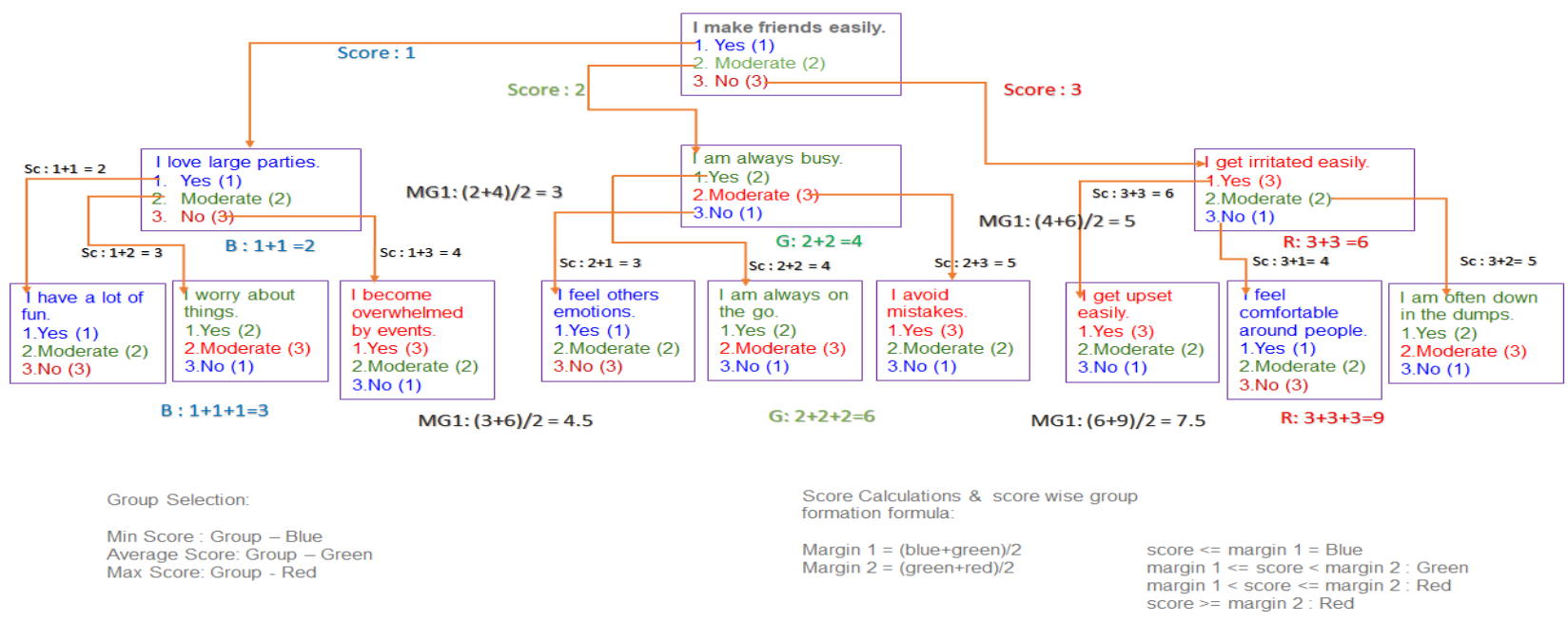
* Reliability: Measure if the software is reliable enough to sustain in any condition. Should give consistently correct results. Software reliability is measured in terms of working of the project under different working environments and different conditions.
* Maintainability: Different versions of the software should be easy to maintain. For development it should be easy to add code to the existing system, and should be easy to upgrade for new features and new technologies from time to time. Maintenance should be cost-effective and easy. The system is easy to maintain and correcting defects or making a change in the software.
* Usability: This can be measured in terms of ease of use. The application should be user-friendly. Should be easy to learn. Navigation should be simple. The system must be: Easy to use for input preparation, operation, and interpretation of the output. Provide consistent user interface standards or conventions with our other frequently used systems. Easy for new or infrequent users to learn to use the system.
* Portability: This can be measured in terms of Costing issues related to porting, Technical issues related to porting, Behavioral issues related to porting.
* Correctness: The application should be correct in terms of its functionality, calculations used internally and the navigation should be correct. This means the application should adhere to functional requirements.
* Efficiency: Major system quality attribute. Measured in terms of time required to complete any task given to the system. If the system is not efficient then it can not be used in real-time applications.
* Integrity or Security: Integrity comes with security. System integrity or security should be sufficient to prevent unauthorized access to system functions, preventing information loss, ensure that the software is protected from virus infection, and protecting the privacy of data entered into the system.
* Testability: The system should be easy to test and find defects. If required it should be easy to divide into different modules for testing.
* Flexibility: Should be flexible enough to modify. Adaptable to other products with which it needs interaction. Should be easy to interface with other standard 3rd party components.
* Reusability: Software reuse is a good cost-efficient and time-saving development way. Different code libraries classes should be generic enough to use easily in different application modules. Dividing application into different modules so that modules can be reused across the application.

Applying above quality attributes standards we can determine whether the system meets the requirements of quality or not.

**3.12 Security Attribute**

* Each participant has an unique id to distinguish him/her.
* Each room quiz test has a unique room id.
* Each participant can edit/update/delete their account.
* Auto logout option.
* Participants can see all blog posts.
* Moderator, admin will have two step verification for log in.
* Forget password option.
* We use SSL which is a digital certificate that encrypts information sent between a web server and web browser. It is one of the most effective ways to achieve data security on our website and to keep our participant data protected.
* We Use a Real-Time Bot Detection Technology to eliminate price scraping and othero Online frauds.
* We use a web application firewall for network level security. Generally, waf protects websites from common attacks such as cross-site scripting (XSS), SQL injections and DDos attacks. Since websites have a lot of inbound traffic, they need firewalls to protect themselves against malicious entry. The two very effective firewalls for websites are application gateways and proxy firewalls.
* We use object oriented php for more security.
* We have a system in place for purging participant data.
* We Insist on participants using strong passwords by pop up notification.

**3.13 Software Visual Architecture**

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In 3.13 section software visual architecture we can see our question pattern. We already know our quiz test is different from other same category quiz tests. In this case the question comes one after another based on the previous question answer. This does not impact their total score. As an example we can say that if someone hairs uber moto to go to his/her destination on other hand someone hairs patao moto to go to the same destination then there is no difference. It's simply their personal choice. Or we can say it's their comfort zone. Our website exactly works like that. If someone likes football they get football related questions but if someone likes traveling they get traveling related questions. At the final result this creates no impact for their total score. Every participant can give their quiz test with their personal comfortness.

**Chapter 4: Tools And Technology Use**

**4.1 Apache Web Server**

Apache is the most widely used web server software. Developed and maintained by Apache Software Foundation, Apache is an open source software available for free. It runs on 67% of all web servers in the world. It is fast, reliable, and secure. It can be highly customized to meet the needs of many different environments by using extensions and modules. Most WordPress hosting providers use Apache as their web server software. However, WordPress can run on other web server software as well.

**4.2 MySql Database**

MySQL is an open-source relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications. The most common use for mySQL however, is for the purpose of a web database.

**4.3 Php**

PHP is a server side scripting language. that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Preprocessor, that earlier stood for Personal Home Pages.PHP scripts can only be interpreted on a server that has PHP installed.The client computers accessing the PHP scripts require a web browser only.A PHP file contains PHP tags and ends with the extension ".php". PHP is open source and free.Short learning curve compared to other languages such as JSP, ASP etc.Large community document.Most web hosting servers support PHP by default unlike other languages such as ASP that need IIS. This makes PHP a cost effective choice.

**4.4 Xampp**

XAMPP is an abbreviation for cross-platform, Apache, MySQL, PHP and Perl, and it allows you to build WordPress sites offline, on a local web server on your computer. This simple and lightweight solution works on Windows, Linux, and Mac – hence the “cross-platform” part.

**4.5 Sublime**

Text: Sublime Text is a shareware cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses. Using Sublime Text as your IDE. Sublime Text is a fast, powerful and easily extensible code editor.Sublime can be used on Linux, Windows and Mac as an IDE for developing Chromium.

**4.6 ResponsiveTemplate**

Responsive Template web design, or RWD, formats a web page layout to be fluid for optimal viewing and navigation across a wide range of devices, including traditional PC and Mac desktop and laptop computers, tablet and surface, smartphones, and all other mobile devices.

**4.7 Operating System**

An operating system (OS), in its most general sense, is software that allows a user to run other applications on a computing device. The operating system manages a computer's hardware resources, including: Input devices such as a keyboard and mouse. Output devices such as display monitors, printers and scanners.

**4.8 Google Docs**

Purpose. Google Docs is a very powerful real-time collaboration and document authoring tool. Multiple users can edit a document at the same time, while seeing each others' changes instantaneously. Users can produce text documents, slide presentations, spreadsheets, drawings, and surveys.

**4.9 Dia**

Dia Diagram Editor is free Open Source drawing software for Windows, Mac OS X and Linux. Dia supports more than 30 different diagram types like flowcharts, network diagrams, database models. More than a thousand readymade objects help to draw professional diagrams. Dia can read and write a number of different raster and vector image formats. Software developers and database specialists can use Dia as a CASE tool to generate code skeletons from their drawings. Dia can be scripted and extended using Python.

**4**.**10 Microsoft Sql Diagram**

SQl diagrams is a powerful tool, before illustrating some of the tasks and issues it would be better to present a list of major concepts. You can only use tables in SQL Server database diagrams. No other SQL Server objects are allowed to be accessed from the diagram editor.Tables in the database diagram are not independent. Any modification in tables through this tool will directly affect the table architecture in the database.

**4.11 Browser**

Short for web browser, a browser is a software application used to locate, retrieve and display content on the World Wide Web, including webpages, images, video and other files. As a client/server model, the browser is the client run on a computer or mobile device that contacts the Web server and requests information. There are four leading web browsers: Explorer, FireFox, Netscape and Safari but there are many others browsers available. Netscape is one of the original Web browsers. This is what Microsoft designed Internet Explorer to compete against. Netscape and IE comprise the major portion of the browser market.

**4.12 Github**

Github is a web-based platform used for version control. Git simplifies the process of working with other people and makes it easy to collaborate on projects. Team members can work on files and easily merge their changes with the master branch of the project Create Repository in Github.

**Chapter 5: Survey Report**

Key demographics were: 55% were female & 45% were male, median age was 20 to 25, median income was 15 thousand to 40 thousand taka and 43% had earned a bachelor degree. And 43% still in bachelor programs at their respected university. Key data points were: 81% reported they owned a computer and 41% owned a handheld organizer, laptop, or personal digital assistant. 43% of the people aren't comfortable with their team members and 42% They rely on their teacher to make a group for himself by randomly picking. The failure of the project 12%. Delay project rate is 22%. The top genres were most team works ecommerce (29%), blog websites (15%), and others (14%). In regards to team mates, 82% reported they were failure because they are not meant to be the same team. 10% of teachers and project managers fail to find a suitable way to create each group. 100% ready to use our system if it fulfills their requirement. 80% teachers and 10 % project managers are happy to help us with their valuable suggestions.

**Some Interview and survey questions:**

* Does your profession involve teamwork?

a)Yes

b)No

* Do you often find difficulties working in a group?

a) Yes

b) No

* Communication within the team is transparent in your workplace.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

* Team members are supportive of each other’s role in your workplace?

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

* Team members appreciate one another's unique capabilities in your workplace.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

* We are able to resolve conflicts with other teams collaboratively in our workplace.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

* Our group members are strongly committed to a shared mission.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

* Do you think team members of similar psychology are necessary for any successful project?

1. Yes
2. No

* Do you believe working with people who have similar psychology as you is a good idea?

1. Yes
2. No

* People of similar psychology can do work at ease.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

|  |
| --- |
| 1. Does your profession involve teamwork?   a) Yes 85 %  b) No 15%  Points scored |

|  |
| --- |
| 1. Do you often find difficulties working in a group?   a) Yes 80 %  b) No 20%  Points scored |

|  |
| --- |
| 1. Communication within the team is transparent in your workplace. a) Strongly Agree 30 % b) Agree 15 % c) Neutral 20 %  d) Disagree 25 % e) Strongly Disagree 10 %   Points scored |

|  |
| --- |
| 1. Team members are supportive of each other’s role in your workplace? a) Strongly Agree 28 % b) Agree 16 % c) Neutral 18 %  d) Disagree 28 % e) Strongly Disagree 10 %   Points scored |

|  |
| --- |
| 1. Team members appreciate one another's unique capabilities in your workplace. a) Strongly Agree 32 % b) Agree 18 % c) Neutral 20 %  d) Disagree 20 % e) Strongly Disagree 10 %   Points scored |

|  |
| --- |
| 1. We are able to resolve conflicts with other teams collaboratively in our workplace. a) Strongly Agree 27 % b) Agree 21 % c) Neutral 22 %  d) Disagree 20 % e) Strongly Disagree 10 %   Points scored |

|  |
| --- |
| 1. Our group members are strongly committed to a shared mission. a) Strongly Agree 31 % b) Agree 24 % c) Neutral 22 %  d) Disagree 13 % e) Strongly Disagree 10 %   Points scored |

|  |
| --- |
| 1. Do you think team members of similar psychology are necessary for any successful project?   a) Yes 70 %  b) No 30 %  Points scored |

|  |
| --- |
| 1. Do you believe working with people who have similar psychology as you is a good idea?   a) Yes 75 %  b) No 25%  Points scored |

|  |
| --- |
| 1. People of similar psychology can do work at ease. a) Strongly Agree 35 % b) Agree 25 % c) Neutral 10 %  d) Disagree 20 % e) Strongly Disagree 10 %   Points scored |

**Chapter 6: Test Plan Identifier**

The objective of this document is to test the functionality of our project which is “Phycological Quiz Test”.

**Chapter 7: Introduction**

The purpose of this document is to describe the plan for testing the main functionalities of Phycological Quiz Test web application. The document will also describe the activities related to testing the software and the environment and tools that will be used to test the software.

**Chapter 8: Test Items/Test Case**

**Project Name:** Phycological Quiz Test.

**Module Name:** Participant Sign Up, User Login, User Logout, User editing, Participant editing.

**Created By:** Ashik Arman.

**Date Of Creation:** DD-MMM-YY.

**Date Of Riview:** DD-MMM-YY.

Now we begin our taste case one by one bellow:

**Test Case Id:** Tc\_Sginup\_001

**Test Case Scenario:** Sign Up to the system.

**Test Case:** Phase 1- Enter valid email id and valid password.

Phase 2- Enter valid user name.

Phase 3-Enter Valid personal information.

**Precondition:** Need a valid email account.

**Test Steps**: Phase 1- Hit our web address

Phase 2- Click the “Create Account Now” button for sign up.

Phase 3- Enter user name.

Phase 4- Enter email id.

Phase 5- Enter password.

Phase 6- Enter personal information.

Phase 7- Click the “Create Account” button.

**Test Data:** <Valid Username> Not <Invalid Username>

<Valid Email Address> Not <Invalid Email Address>

<Valid Password> Not <Invalid password>

<Valid Personal Information> Not < Invalid Personal Information>

**Expected Result:** Phase 1- Successful create account.

Phase 2- The Email and Password are not valid.

Phase 3- The Email and Password already exist.

Phase 4- The Password and Re-Password do not match.

Phase 5- The User name is invalid.

Phase 6- The User name already exist.

**Post Condition:** Participant personal account is shown.

**Actual Result**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Status( Pass/Fail ):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test Case Id:** Tc\_Login\_002

**Test Case Scenario:** Log in to the system.

**Test Case:** Phase 1- Enter valid email id or User name.

Phase 2- Enter valid password.

**Precondition:** Need a valid existing email account or User name.

**Test Steps**: Phase 1- Click the “Login Account” button for login.

Phase 2- Enter user name or email id.

Phase 3- Enter password.

Phase 4- Click the “Login” button.

**Test Data:** <Valid Username> Not <Invalid Username>

<Valid Email Address> Not <Invalid Email Address>

<Valid Password> Not <Invalid password>

**Expected Result:** Phase 1- Successful log in to the account.

Phase 2- The Email or user name and Password are not valid.

**Post Condition:** Participant personal account is shown into the system.

**Actual Result**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Status( Pass/Fail ):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test Case Id:** Tc\_Logout\_003

**Test Case Scenario:** Logout from the system.

**Test Case:** Phase 1- Find the logout button.

**Precondition:** Phase 1: Need an already existing account on the system.

Phase 2: Need to log in to the account already.

**Test Steps**: Phase 1- Click the “Logout” button for logout.

Phase 4- Click the “Logout” button.

**Test Data:** <Send back to the landing page> Not <Send back to the landing page>

**Expected Result:** Phase 1- Successful logout from the account.

Phase 2- Show error or same page.

**Post Condition:** Participant back to the landing page.

**Actual Result**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Status( Pass/Fail ):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test Case Id:** Tc\_User\_CRUD\_004

**Test Case Scenario:** User can run crud operation into the system..

**Test Case:** Phase 1- User can update.

Phase 2- User can remove.

Phase 3- User can update.

Phase 4- User can delete.

**Precondition:** Users need to identify their status as admin or moderator.

**Test Steps**: Phase 1- Hit edit page or delete page.

Phase 2- Click the “Edit” button for editing all information.

Phase 3- Click the “Delete” button for deleting any information.

Phase 4- Click the “Insert” button for creating any information.

**Test Data:** <Valid Edit Information> Not <Invalid edit information>

<Valid Delete Any Information> Not <Invalid Delete Any Information>

<Valid Insert Information> Not <Invalid Insert Any Information>

**Expected Result:** Phase 1- Successful edit any information.

Phase 2- Successful delete any information.

Phase 3- Successful insert any information.

Phase 4- You have no permission to edit.

Phase 5- You have no permission to delete.

Phase 6- You have no permission to insert.

**Post Condition:** User update work is shown.

**Actual Result**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Status( Pass/Fail ):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test Case Id:** Tc\_Participent\_CRUD\_005

**Test Case Scenario:** Participant can run crud operation into the system..

**Test Case:** Phase 1- Participent can update.

Phase 2- Participant can remove.

Phase 3- Participant can update.

Phase 4- Participant can delete.

**Precondition:** Participants need a personal account.

**Test Steps**: Phase 1- Hit edit page or delete page.

Phase 2- Click the “Edit” button for editing all information.

Phase 3- Click the “Delete” button for deleting any information.

Phase 4- Click the “Insert” button for creating any information.

**Test Data:** <Valid Edit Information> Not <Invalid edit information>

<Valid Delete Any Information> Not <Invalid Delete Any Information>

<Valid Insert Information> Not <Invalid Insert Any Information>

**Expected Result:** Phase 1- Successful edit any information.

Phase 2- Successful delete any information.

Phase 3- Successful insert any information.

Phase 4- You have no permission to edit.

Phase 5- You have no permission to delete.

Phase 6- You have no permission to insert.

**Post Condition:** Participant update work is shown.

**Actual Result**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Status( Pass/Fail ):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 9: Referenced Documents**

List of all documents that support this project plan. Refer to the actual version/release number of the document or books as stored in the configuration of various websites. There is no duplicate text from other documents. Documents that can be referenced include bellow:

* G. O. Michaels, “The 11 low of Likability,” in Plastics, vol. 3, Power of human psychological test, J. Peters, Ed., 2nd ed. New York, NY, USA: McGraw-Hill, 1964, pp. 15–64. [Online]. Available: http://www.bookref.com.
* D. Caratelli, M. C. Viganó, G. Toso, and P. Angeletti, “Analytical placement technique for human behavior,” presented at the 32nd ESA Mind Architecture Workshop, Noordwijk, The Netherlands, Oct. 5–8, 2010.
* Process Psychological Test Corp., Framingham, MA, USA. Intranets: Internet technologies reduce our emotion and natural productivity. Presented at INET’96 Annu. Meeting. [Online]. Available: http://www.process.com/ Intranets/wp2.htp.
* J. Barney. (2011). Documenting survey about natural human mentality [PowerPoint slides]. Available: <http://moodle.cotr/english/gill>.
* J. Smith. “Abrahem inaugurated as President of Mental City Hospital.” CNN.com. http://www.cnn.com/POLITICS/01/21/obama\_inaugurated/index.html (accessed Feb. 1, 2009).

**Chapter 10: Software Risk Issues**

Software risk is future uncertain events with a probability of occurrence and potential for loss. The first main concern is risk identification and managing everything. Risks are identified, classified and managed before the actual execution of the program. In web applications like us, risk is much more than other desktop applications.

Facing there are lots of risk issues due to the following reasons:

1) Schedule Risk:

* Wrong time estimations.
* Staff , systems and developers are not tracked properly.
* Failure to identify complex functionalities and time required to develop those functionalities.
* Unexpected project scope expansions.

2) Budget Risk

* Wrong budget estimation.
* Cost overruns
* Project scope expansions

3) Operational Risks:

* Failure to address priority conflicts.
* Resources are not sufficient.
* No proper subject training.
* No resource planning.
* Miscommunication in the team member.

4) Technical Risks: Technical risks generally lead to failure of functionality and performance.

Causes of Technical Risks are:

* Continuous change requested.
* Advanced technology is not available.
* The product is complex to implement.
* Difficult project modules integration.
* Poorly documented .

5) Programmatic Risks:

* Running out of the fund.
* Market development.
* Changing participant quiz test strategy and priority.
* Government regulations and rules Changes.

**Chapter 11: Features to be Tested:**

Feature testing is a very important part of our web application. Feature testing is the process of making changes in a software system to add one or more new features or to make modifications in the already existing features. Aim of Feature testing is verifying that the system is ready for release, works properly or not. It helps developers and testers in detecting bugs at the feature level of the software. If any software is unable to perform the client requirements or execute the chosen functions with accuracy, it may lead to significant loss of money and efforts.

We have tested:

* Participant Sign Up.
* User Login.
* User Logout.
* User editing.
* Participant editing in this system.

We have to make sure of accurate understanding of the feature, creating various test scenarios and knowledge of the feature implementation before the testing is done. Testers can track errors and bugs in the features and find ways to correct them. Performing feature testing in the early stages, the testers can find defects as soon as they are detected and make changes as per the client’s demands.

**Chapter 12 : Features not to be tested**

The list of all the features that are not planned for testing will be listed out.

Ex:

* out of scope features.
* low risk features.
* future functionality.
* specific the reason these features won’t be tested.
* Not to include these features for software release time.

**Chapter 13: Approach**

We follow two types of testing approach simultaneously. At first our developer tried to test internal structures or workings of our web application, as opposed to its functionality. This type of testing is called white box testing. In white-box testing an internal perspective of the system, as well as programming skills, are going to test also. Our developers also take a consultative approach when they are testing. When our developer develops something by consulting experienced people it's called a consultative testing approach.

After that the independent tester will fill out the different forms in the application and analyze the system outputs. The application will check that all the fields are properly filled and will perform the desired operation. Black Box testing will be the approach used by the independent tester. To help the tested the developer will write equivalence classes that will be used to denote what values are expected in the corresponding fields and what values should not be accepted. The equivalence classes will be used by the tested to perform the black box testing. So, the independent tester doesn’t have to know how the functions are implemented, He/She only cares about the input and output of the different use cases.

For example in the Register or sign up use case the system should check that all the required fields are filled, that the login doesn’t already exist and that the proper values are introduced in the corresponding fields (i.e. numbers are introduced in the telephone number field). If all the fields are correct a new user should be added to the application.

Unit tests will be applied to the code to check the different methods and functions. Also, we will check the class interfaces to make sure that the different modules are integrated correctly.

**Chapter 14: Item Pass/Fail Criteria**

The software must be able to pass the tests for all the critical uses cases described in the Software Requirement Design document. Each feature will be considered to be passed if it satisfies the corresponding requirement in the document and fails if any or none of the behavioral expectations are met as described.

**Chapter 15: Suspension Criteria and Resumption Requirements**

Suspension criteria specify the criteria to be used to suspend all or a portion of the testing activities while resumption criteria specify when testing can resume after it has been suspended.

Situation could be:

* If there is unavailability of external dependent systems during execution.
* If there is any network, hardware problem in the organisation , we can suspend testing.
* If we got any high severe and high priority bugs.
* If we got more pending requests with the development team.
* Due to valid customer changes.
* When a fatal defect is introduced that cannot allow any further testing.
* If we missed a critical path deadline after that the client will not accept delivery even if all testing is completed.
* A specific holiday can shut down both development and testing.

**Resumption Criteria:**

Defines when to restart testing activity.

* when the particular issue has been addressed and solved

Live example of suspension and resumption Criteria:

* Suspension Criteria: If any of the tests selected by the testing team do not give the expected result, then the testing will be suspended until the bug is fixed by the developer.
* Resumption Criteria: Testing will be done again to ensure that the bug has been fixed and the selected tests give the expected results. Only then will the testing be resumed.

**Chapter 16: Test Deliverables**

**16.1 Test Strategy**

Test Strategy is a high level document (static document) and usually developed by the project manager. It is a document which captures the approach on how we go about testing the product and achieve the goals. We already explain our test approach in the upper section. Test Strategy is normally derived from the business requirement specification (BRS). Documents like Test plan keeping this document at base.

Test Strategy Contains-

* Scope and Objective: Already explained in the upper section.
* Business Issues: Our website is non profitable. But we display advertisements to pay our employee salary. So software risk issues are main business issues for us. We already explain software risk issues in the upper section.
* Automation; We place artificial intelligence into our website. As an example we can talk about our chat box or selecting random questions each time or show the final score after finishing the quiz test.

**16.2 Effort Estimation Report**

Effort estimation report deals with the estimated effort and actual effort on each task. Before a script starts, we need to enter the original estimates of our task and as we work on the tasks during the sprint, we may need to adjust the remaining estimates as necessary. We collect our effort estimation document from our software development project management document.

**16.3 Test Scenario**

Test scenario gives the idea of what we have to test. We already provide this in our test case article above.

**16.4 Test Data**

Test data plays a crucial role while doing the actual testing. It contains both positive and negative data to do both positive and negative testing. We place all the test data in a database that while doing testing.We get the real time historical data from the client and use it while testing.

**16.5 Requirement Traceability Matrix**

Requirement traceability matrix (RTM) is used to trace the requirements to the tests that are needed to verify whether the requirements are fulfilled.

**16.6 Installation Guide**

Our application is a web based application so no need for installation. But participants need good internet speed.

**16.7 Test Status Report**

The purpose of the test status report is to track the progress of the ongoing work of the project. It helps to review the current status and allows test leads to maintain the pace of the project progress without any deviation based on the task planned.

**Chapter 17: Remaining Test Tasks**

There are several tasks to be tested. In the above test case section we tasted high priority tasks. These tasks are the key structure of our project. But there are also some tasks which do not create big impacts in our project. But they are not unnecessary tasks. So we can test those tasks in the next phase.

Multi Language System: In our web application there are two types of language one is english another one is bangla. But most of our participants select our default language which is english. Very few participants actually choose the second option.

Blog Post reaction With Emoji: We provide multiple emoji to react to our blog post. But most of the time our participants like to comment and not react.

Moderator Theme change option; Moderator can change theme or fronts size to our website only just clicking some button. But it's not a necessary option to test in the first phase. Also it does not create any impact on our daily participent. Because every theme or font size is already much comfortable for our participant.

Auto Location Select Function: Most of the time participants select their location by scrolling our location check box. But when participent hit the location box. Automatic location will be suggested, if participants want they can select that by hitting that suggested location.

**Chapter 18: Environmental Needs**

## What is a Test Environment?

A testing environment is a setup of software and hardware for our testing teams to execute test cases. In other words, it supports test execution with hardware, software and network configured.Test bed or test environment is configured as per the need of the Application Under Test. On a few occasions, a test bed could be the combination of the test environment and the test data it operates. Setting up a right test environment ensures software testing success. Any flaws in this process may lead to extra cost and time to the client.

Factors for designing Test Environment:

* Determine if the test environment needs archiving in order to take back ups.
* Verify the network configuration.
* Identify the required server operating system, databases and other components.
* Identify the number of licenses required by the test team.

## Key areas to set up in Test Environment:

For the test environment, a key area to set up includes

* System and applications.
* Test data.
* Database server.
* Front-end running environment.
* Browser.
* Hardware includes Server Operating systems.
* Network.
* Documentation required like reference documents/configuration guides/installation guides/ user manuals.

Process of Software Test environment setup:

Tests are limited to what can be tested and what not should be tested. Following people are involved in test environment setup

* System Admins.
* Developers.
* Testers.
* Moderator.

The test environment requires setting up of various number of distinct areas like,

Setup of Test Server

Every test may not be executed on a local machine. It may need establishing a test server, which can support applications. For example, Fedora set up for PHP, Java-based applications with or without mail servers, cron set up, Java-based applications, etc.

Network

Network setup as per the test requirement. It includes,

* Internet setup.
* LAN Wifi setup.
* Private network setup.

It ensures that the congestion that occurs during testing doesn't affect other members. (Developers, designers, content writers, etc.)

Test PC setup

For web testing, we need to set up different browsers for different testers. For desktop applications, we need various types of OS for different testers PCs. But our application is a web application. In this case different browsers will be enough to work with.

Creating Test Data for the Test Environment

Many companies use a separate test environment to test the web application. The common approach used is to copy participant data to test. This helps the tester, to detect the same issues as a live production server, without corrupting the participant data. The approach for copying participant data to test data includes:

* Set up participant to quiz score copy the data to a common test environment
* All PII (Personally Identifiable Information) is modified along with other sensitive data. The PII is replaced with logically correct, but non-personal data.
* Remove data that is irrelevant to our test.

Testers or developers can copy this to their individual test environment. They can modify it as per their requirement. Privacy is the main issue in copy participant data. To overcome privacy issues we should look into obfuscated and anonymized test data. For Anonymization of data two approaches can be used:

* BlackList: In this approach, all the data fields are left unchanged. Except those fields specified by the users.
* WhiteList: By default, this approach, anonymizes all data fields. Except for a list of fields which are allowed to be copied. A whitelisted field implies that it is okay to copy the data as it is and anonymization is not required.

Also, if we are using participant data, we need to be smart about how to source data. Querying the database using [sql](https://www.guru99.com/sql.html) script is an effective approach.

Test Environment Management

Test Environment Management deals with the maintenance and upkeep of the test bed.List of activities by the Test environment management function include,

1. Maintenance of a central repository with all the updated versions of test environments.
2. Test environment management as per the test team demands.
3. As per the new requirements creating new environments
4. Monitoring of the environments
5. Updating/deleting outdated test-environments
6. Investigation of issues on the environment
7. Coordination is still an issue resolution.

## Test bed: In general, a test bed is a software development environment. It allows the developers to test their modules without affecting the live production servers. The test bed is not confined to developers only but also used by testers. It is referred to as a test environment as well.

Test Environment Checklist:

**Hardware**

|  |  |
| --- | --- |
| Check whether required equipment for testing is available? | If this is not the case, analyze the supply time! |
| Check whether peripheral equipment is available? | Such as scanners, special printers, handhelds, etc. |

**Software / connections**

|  |  |
| --- | --- |
| Are the needed applications specified? | An application such as excel, word, drawings, etc. |
| For the new software does the test environment exist for the organization? | Has the organization experience with use and maintenance of the software? |

**Environmental data**

|  |  |
| --- | --- |
| Check whether the standard test data sets are available? | With the regression test set, consider the [Defect](https://www.guru99.com/defect-management-process.html) administration to collect test data. |
| Do agreements with the test data owners about the test data exist? | Consider functional maintenance? |

**Chapter 19: Responsibilities**

* Reviewing software requirements and preparing test scenarios.
* Executing tests on software usability.
* Analyzing test results on database impacts, errors or bugs, and usability.
* Preparing reports on all aspects related to the software testing carried out and reporting to the design team.
* Interacting with participants to understand quiz requirements.
* Participating in design reviews and providing input on requirements, quiz question design, and potential problems.

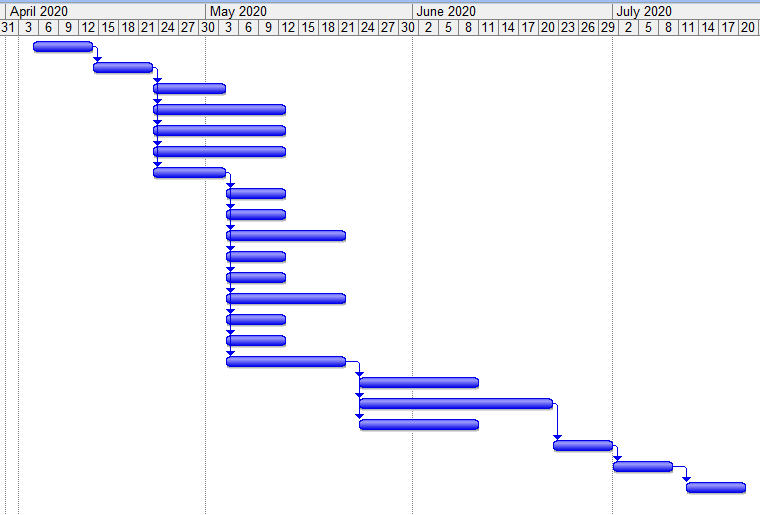
**Chapter 20: Work Breakdown Structure and Schedule**

Work Breakdown Structure and Scheduling are given below for the project.

**20.1 Work Breakdown Structure**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **WBS Id** | **Action** | **Task Name** | **Duration** | **Predecessors** |
| 1.1.1 | A | Develop Business case | 1 week | - |
| 1.1.2 | B | Assign Project Manager | 1 week | A |
| 1.1.3 | C | Develop Project Charter | 1 week | B |
| 1.2.1 | D | Perform Primary Planning | 2 weeks | B |
| 1.2.2 | E | Perform Support Planning | 2 weeks | B |
| 1.2.3 | F | Develop Performance Plan | 2 weeks | B |
| 1.3.1 | G | Assign Developers | 1 week | B |
| 1.3.2 | H | Manage Procurements | 1 week | G |
| 1.3.3 | I | Track and Manage Risks | 1 week | G |
| 1.3.4.1 | J | Website Prototype Design | 2 weeks | G |
| 1.3.4.2 | K | Landing Page | 1 week | G |
| 1.3.4.3 | L | User Registration/Login/User type | 1 week | G |
| 1.3.4.4 | M | Question Function | 2 week | G |
| 1.3.4.5 | N | User Profile | 1 week | G |
| 1.3.4.6 | O | Team profile | 1 week | G |
| 1.3.4.7 | P | Team Room | 2 week | G |
| 1.3.4.8 | Q | Design and Create Other Pages | 2 week | P |
| 1.3.5 | R | Manage Changes | 3 weeks | P |
| 1.3.5.1 | S | Test the system | 2 weeks | P |
| 1.3.6 | T | Perform LIAT | 1 week | R |
| 1.4.1 | U | Documentation Closeout | 1 week | T |
| 1.4.2 | V | Transfer Project | 1 week | U |

**20.2 Schedule**



**Chapter 21: Planning Risks and Contingencies**

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk Identified** | **Probability** | **Impact** | **Mitigation** |
| Failure to retain key project staff | Low | High | Establish a team with a written commitment to timeline, ensure knowledge capture through project. |
| Error in function | Medium | Medium | Test the web app frequently and maintain daily backup. |
| Improper neutralization of special elements used in a sql command. (Sql Injection) | Medium | High | Maintain security check and backup. |
| Improper neutralization of special elements used in an OS command. (OS command Injection) | Medium | High | Maintain daily backup and update security rules. |
| Improper neutralization of input during web page generation. (Cross-site scripting) | Medium | High | Proper validation and update security. |
| Unrestricted upload of file with dangerous type. | High | High | Define the allowed file type and block uploading undefined file type. |
| Cross Site Request Forgery. | Medium | Medium | Check the codes and errors and fix them immediately. |
| URL redirection to untrusted sites. (Open Redirect) | Low | Low | Install url related issues and install ssl. |
| Buffer copy without checking size of input. (Class Buffer Overflow) | Low | Medium | Fix buffer problem by defining the file size accurately. |
| Incorrect calculation of buffer size. | Low | Medium | Fix buffer size according to need. |
| Download of code without integrity check. | Medium | High | Check the code after downloading and before embedding to the web application. |
| Missing authentication for critical functions. | Medium | High | Restore backup, use Cloud Delivery Network (CDN). |
| Missing authorization. | Low | High | Restore backup, change authentication, update security. |
| Missing encryption of sensitive data. | Low | High | Restore backup and update security. |
| Reliance on untrusted inputs in a security decision. | High | High | Reduce reliance on untrusted inputs. |
| Execution with unnecessary privileges. | Medium | High | Block the user and ip, update security. |
| Incorrect permission assignment for critical resources. | Low | High | Block the user and ip, update security. |
| Use of a broken or risky cryptographic algorithm. | Low | High | Block the user and ip, update security. |
| Improper restriction on excessive authentication attempts. | High | Medium | Restrict users after 3 unsuccessful login attempts. |

**Chapter 22: Approval**

The Software Project “Psychological Automation Quiz Test” has been submitted to the following respected members of the Board of Examiners of the Faculty of Science and Information Technology in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science on 3rd December by the following students and has been accepted satisfactory.

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**Chapter 23: Glossary**

The glossary is meant to help us get familiar with words and phrases commonly used in our testing and requirements work. we can use the glossary as the basis for introducing these terms into our web application or standardizing their use.

### **A**

### [**Acceptance testing**](https://reqtest.com/testing-blog/ultimate-guide-to-user-acceptance-testing/)

### The final test level. Conducted by users with the purpose to accept or reject the system before release.

### **Actual result**

The system status or behaviour after you conduct a test. An anomaly or deviation is when your actual results differ from the expected results.

**B**

**Black box testing**

Testing in which the test object is seen as a “black box” and the tester has no knowledge of its internal structure. The opposite of white box testing.

**Bug**

A slang term for fault, defect, or error. Originally used to describe actual insects causing malfunctions in mechanical devices that predate computers. The International Software Testing Qualifications Board (ISTQB) glossary explains that “a human being can make an error (mistake), which produces a defect (fault, bug) in the program code, or in a document. If a defect in code is executed, the system may fail to do what it should do (or do something it shouldn’t), causing a failure. Defects in software, systems or documents may result in failures, but not all defects do so.” See also debugging.

**D**

**Defect**

A flaw in a component or system that can cause the component or system to fail to perform its required function. A defect, if encountered during execution, may cause a failure of the component or system.

**Document review**

See review.

**E**

**Error**

A human action that produces an incorrect result.

**Error description**

The section of a defect report where the tester describes the test steps he/she performed, what the outcome was, what result he/she expected, and any additional information that will assist in troubleshooting.

**F**

**Functional integration**

An integration testing strategy in which the system is integrated one function at a time. For example, all the components needed for the “search customer” function are put together and tested one by one.

[**Functional testing**](https://reqtest.com/testing-blog/functional-vs-non-functional-testing/)

Testing of the system’s functionality and behaviour; the opposite of non-functional testing.

### 

### **G**

**Gray-box testing**

Testing which uses a combination of white box and black box testing techniques to carry out software debugging on a system whose code the tester has limited knowledge of.

### **I**

**IEEE 829**

An international standard for test documentation published by the IEEE organization. The full name of the standard is IEEE Standard for Software Test Documentation. It includes templates for the test plan, various test reports, and handover documents.

**Chapter 24: Conclusion**

Team Building is the most important factor that decides the overall success of any organization or web application like us .Working with other people doesn’t mean that working as a team. Real teamwork implies collaboration, communication, and acknowledgment of a common purpose. Hence, a group is more than just a gathering of people, and not all groups are teams. Teams are, in fact, a very particular kind of group in that they’re interdependent and focused on structure and activities. At a minimum, a team should be a cooperative unit and, at its best, a team is a collaborative unit.” Intuitively, we know thatcommunication is an essential factor for a group of people working together. It provides feedback and guidance on how well each of the team members listens, encourages participation, and discusses sensitive topics. We try our best to follow the above rules.

In the next phase of our web application we try to test some more important thing which is:

* We build an android app for android mobile devices. Which also uses the same database so that our system will act dynamically. So after finishing this sub project we need to test it.
* We try to test our phycological books and ebooks section.
* We try to make a consulting session with those participants who need this. So in this case we need a video streaming test.