<WEBSITE SPMB>

Laman Fasilitas & Pengumuman Test Plan

Version <1.0>

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Revision History

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<Iteration/ Master> Test Plan

1. Introduction

1.1 Purpose

1.1. Test Plan Objectives

Test Plan mempunyai beberapa tujuan sebagai berikut:

- Menentukan kegiatan yang diperlukan untuk mempersiapkan Sistem
- Mengkomunikasikan strategi Sistem Pengujian kepada semua pihak bertanggung jawab.
- Menentukan apa saja yang akan dilaporkan pada pihak yang bertanggung jawab.
- Mengkomunikasikan kepada semua pihak yang bertanggung jawab dalam berbagai Dependensi dan Risiko

1.2 Scope

Sistem ini dapat memberikan informasi terkait fasilitas Institut Teknologi Del dan pengumuman selama proses pendaftaran mahasiswa baru IT Del. Sebagai admin, admin bisa mengubah, membuat, serta menghapus informasi yang ada pada laman Fasilitas dan Pengumuman melalui admin panel.

1.3 References

1.4 Document Structure

2. Evaluation Mission and Test Motivation

2.1 Background

2.2 Evaluation Mission

2.3 Test Motivators

3. Target Test Items

The listing below identifies those test items_software, hardware, and supporting product elements _that have been identified as targets for testing. This list represents what items will be tested.

4. Outline of Planned Tests

4.1 Outline of Test Inclusions

4.2 Outline of Other Candidates for Potential Inclusion

4.3 Outline of Test Exclusions

5. Test Approach

Testing pada website ini akan dilakukan dengan tools Katalon dan manajemen test case menggunakan testrails.

5.1 Initial Test-Idea Catalogs and Other Reference Sources

1.1 Testing Techniques and Types

5.1.1 User Interface Testing

Technique Objective:	*Memastikan fungsi navigasi yang lancar dan tampilan yang benar pada modul pengumuman dan fasilitas di website SPMB IT Del.*
Techni	*Membuat atau mengubah skenario uji untuk setiap elemen pada modul pengumuman dan fasilitas, menguji navigasi yang tepat dan status objek.*
Oracles:	*Visual Verification: Memastikan tampilan sesuai dengan desain dan standar.* *Automated Checks: Verifikasi otomatis untuk status objek dan navigasi yang benar.* *Standards Conformance: Perbandingan hasil uji dengan standar desain yang telah ditetapkan.*
Required Tools:	*Menggunakan Test Script Automation Tool untuk eksekusi dan verifikasi skenario uji dengan efisien.*
Success Criteria:	*Teknik ini mendukung pengujian setiap elemen pada modul pengumuman dan fasilitas secara menyeluruh, memastikan navigasi dan status objek yang akurat.*
Special Considerations:	*Pertimbangkan bahwa tidak semua properti objek kustom atau pihak ketiga dapat diakses, mungkin memerlukan pemeriksaan manual. Pastikan informasi sensitif terlindungi dan pertimbangkan keseimbangan antara otomatisasi dan verifikasi manual.*

5.1.2 Performance Profiling

Technique Objective:	*Menganalisis dan memantau kinerja modul pengumuman dan fasilitas di website SPMB IT Del untuk memastikan responsif dan efisiensi yang optimal.*
Technique:	*Menggunakan alat profil kinerja untuk mengidentifikasi dan memetakan area-area yang dapat ditingkatkan, memastikan waktu muat yang cepat, dan menangani penggunaan yang tinggi.*

Oracles:	*Response Time: Memastikan waktu tanggapan halaman dan elemen berada dalam batas yang dapat diterima.* *Resource Utilization: Memeriksa penggunaan sumber daya seperti CPU, memori, dan bandwidth untuk optimalisasi.* *Concurrency Handling: Menguji kemampuan modul untuk menangani penggunaan bersamaan tanpa penurunan kinerja yang signifikan.*
Required Tools:	*Menggunakan alat profil kinerja seperti Google PageSpeed, Lighthouse, atau alat serupa untuk analisis waktu muat dan sumber daya.*
Success Criteria:	*Waktu muat halaman dan elemen sesuai dengan standar kinerja.* *Penggunaan sumber daya tetap dalam batas yang dapat diterima bahkan pada tingkat penggunaan yang tinggi.*
Special Considerations:	*Uji kinerja perlu dilakukan di kondisi jaringan yang beragam untuk memastikan kesesuaian. Selain itu, aspek keamanan dan pengelolaan beban juga perlu menjadi perhatian khusus dalam pengujian kinerja.*

5.1.3 Load Testing

Technique Objective:	
Technique:	·
Oracles:	
Required Tools:	
Success Criteria:	
Special Considerations:	·

5.1.4 Stress Testing

Technique Objective:	
Technique:	
Oracles:	
Required Tools:	
Success Criteria:	
Special Considerations:	·

5.1.5 Volume Testing

Technique Objective:	
Technique:	
Oracles:	
Required Tools:	
Success Criteria:	
Special Considerations:	

5.1.6 Security and Access Control Testing

Technique Objective:	
Technique:	
Oracles:	
Required Tools:	
Success Criteria:	
Special Considerations:	

5.1.7 Failover and Recovery Testing

Technique Objective:	
Technique:	
Oracles:	
Required Tools:	
Success Criteria:	
Special Considerations:	

5.1.8 Configuration Testing

Technique Objective:	
Technique:	
Oracles:	
Required Tools:	
Success Criteria:	
Special Considerations:	

5.1.9 Installation Testing

[Installation testing has two purposes. The first is to ensure that the software can be installed under different conditions_such as a new installation, an upgrade, and a complete or custom installation_under normal and abnormal conditions. Abnormal conditions include insufficient disk space, lack of privilege to create directories, and so on. The second purpose is to verify that, once installed, the software operates correctly. This usually means running a number of the tests that were developed for Function Testing.]

Technique Objective:	
Technique:	
Oracles:	
Required Tools:	
Success Criteria:	

Special Considerations:	

6. Entry and Exit Criteria

6.1 Test Plan

6.1.1 Test Plan Entry Criteria

*[Specify the criteria that will be used to determine whether the execution of the **Test Plan** can begin.]*

6.1.2 Test Plan Exit Criteria

*[Specify the criteria that will be used to determine whether the execution of the **Test Plan** is complete or that continued execution provides no further benefit.]*

6.1.3 Suspension and Resumption Criteria

[Specify the criteria that will be used to determine whether testing should be prematurely suspended or ended before the plan has been completely executed, and under what criteria testing can be resumed.]

6.2 Test Cycles

6.2.1 Test Cycle Entry Criteria

*[Specify the criteria to be used to determine whether the test effort for the next Test Cycle of this **Test Plan** can begin.]*

6.2.2 Test Cycle Exit Criteria

*[Specify the criteria that will be used to determine whether the test effort for the current Test Cycle of this **Test Plan** is deemed sufficient.]*

6.2.3 Test Cycle Abnormal Termination

[Specify the criteria that will be used to determine whether testing should be prematurely suspended or ended for the current test cycle, or whether the intended build candidate to be tested must be altered.]

7. Deliverables

[In this section, list the various artifacts that will be created by the test effort that are useful deliverables to the various stakeholders of the test effort. Don't list all work products; only list those that give direct, tangible benefit to a stakeholder and those by which you want the success of the test effort to be measured.]

7.1 Test Evaluation Summaries

[Provide a brief outline of both the form and content of the test evaluation summaries, and indicate how frequently they will be produced.]

1.1 Reporting on Test Coverage

[Provide a brief outline of both the form and content of the reports used to measure the extent of testing, and indicate how frequently they will be produced. Give an indication as to the method and tools used to record, measure, and report on the extent of testing.]

1.2 Perceived Quality Reports

[Provide a brief outline of both the form and content of the reports used to measure the perceived quality of the product, and indicate how frequently they will be produced. Give an indication about to the method and tools used to record, measure, and report on the perceived product quality. You might include some analysis of Incidents and Change Request over Test Coverage.]

1.3 Incident Logs and Change Requests

[Provide a brief outline of both the method and tools used to record, track, and manage test incidents, associated change requests, and their status.]

1.4 Smoke Test Suite and Supporting Test Scripts

[Provide a brief outline of the test assets that will be delivered to allow ongoing regression testing of subsequent product builds to help detect regressions in the product quality.]

1.5 Additional Work Products

*[In this section, identify the work products that are optional deliverables or those that should not be used to measure or assess the successful execution of the **Test Plan**.]*

7.1.1 Detailed Test Results

[This denotes either a collection of Microsoft Excel spreadsheets listing the results determined for each test case, or the repository of both test logs and determined results maintained by a specialized test product.]

7.1.2 Additional Automated Functional Test Scripts

[These will be either a collection of the source code files for automated test scripts, or the repository of both source code and compiled executables for test scripts maintained by the test automation product.]

7.1.3 Test Guidelines

[Test Guidelines cover a broad set of categories, including Test-Idea catalogs, Good Practice Guidance, Test patterns, Fault and Failure Models, Automation Design Standards, and so forth.]

7.1.4 Traceability Matrices

[Using a tool such as Rational RequisistePro or MS Excel, provide one or more matrices of traceability relationships between traced items.]

8. Testing Workflow

*[Provide an outline of the workflow to be followed by the Test team in the development and execution of this **Test Plan**.]*

*The specific testing workflow that you will use should be documented separately in the project's Development Case. It should explain how the project has customized the base RUP test workflow (typically on a phase-by-phase basis). In most cases, we recommend you place a reference in this section of the **Test Plan** to the relevant section of the Development Case. It might be both useful and sufficient to simply include a diagram or image depicting your test workflow.*

More specific details of the individual testing tasks are defined in a number of different ways, depending on project culture; for example:

- *defined as a list of tasks in this section of the **Test Plan**, or in an accompanying appendix*
- *defined in a central project schedule (often in a scheduling tool such as Microsoft Project)*
- *documented in individual, "dynamic" to-do lists for each team member, which are usually too detailed to be placed in the **Test Plan***
- *documented on a centrally located whiteboard and updated dynamically*
- *not formally documented at all*

Based on your project culture, you should either list your specific testing tasks here or provide some descriptive text explaining the process your team uses to handle detailed task planning and provide a reference to where the details are stored, if appropriate.

For Master Test Plans, we recommend avoiding detailed task planning, which is often an unproductive effort if done as a front-loaded activity at the beginning of the project. A Master Test Plan might usefully describe the phases and the number of iterations, and give an indication of what types of testing are generally planned for each Phase or Iteration.

***Note**: Where process and detailed planning information is recorded centrally and separately from this Test Plan, you will have to manage the issues that will arise from having duplicate copies of the same information. To avoid team members referencing out-of-date information, we suggest that in this situation you place the minimum amount of process and planning information within the Test Plan to make ongoing maintenance easier and simply reference the "Master" source material.]*

9. Environmental Needs

*[This section presents the non-human resources required for the **Test Plan**.]*

9.1 Base System Hardware

The following table sets forth the system resources for the test effort presented in this *Test Plan*.

[The specific elements of the test system may not be fully understood in early iterations, so expect this section to be completed over time. We recommend that the system simulates the production environment, scaling down the concurrent access and database size, and so forth, if and where appropriate.]

*[**Note**: Add or delete items as appropriate.]*

System Resources		
Resource	**Quantity**	**Name and Type**
Database Server		
Network or Subnet		TBD
Server Name		TBD
Database Name		TBD
Client Test PCs		
Include special configuration requirements		TBD
Test Repository		
Network or Subnet		TBD
Server Name		TBD
Test Development PCs		TBD

9.2 Base Software Elements in the Test Environment

The following base software elements are required in the test environment for this *Test Plan*.

[Note: Add or delete items as appropriate.]

Software Element Name	Version	Type and Other Notes
NT Workstation		Operating System
Windows 2000		Operating System
Internet Explorer		Internet Browser
Netscape Navigator		Internet Browser
MS Outlook		eMail Client software
Network Associates McAfee Virus Checker		Virus Detection and Recovery Software

9.3 Productivity and Support Tools

The following tools will be employed to support the test process for this *Test Plan*.

[Note: Add or delete items as appropriate.]

Tool Category or Type	Tool Brand Name	Vendor or In-house	Version
Test Management			

Tool Category or Type	Tool Brand Name	Vendor or In-house	Version
Defect Tracking			
ASQ Tool for functional testing			
ASQ Tool for performance testing			
Test Coverage Monitor or Profiler			
Project Management			
DBMS tools			

9.4 Test Environment Configurations

The following Test Environment Configurations needs to be provided and supported for this project.

Configuration Name	Description	Implemented in Physical Configuration
Average user configuration		
Minimal configuration supported		
Visually and mobility challenged		
International Double Byte OS		
Network installation (not client)		

10. Responsibilities, Staffing, and Training Needs

*[This section presents the required resources to address the test effort outlined in the **Test Plan**—the main responsibilities, and the knowledge or skill sets required of those resources.]*

10.1 People and Roles

This table shows the staffing assumptions for the test effort.

*[**Note**: Add or delete items as appropriate.]*

Human Resources		
Role	**Minimum Resources Recommended** **(number of full-time roles allocated)**	**Specific Responsibilities or Comments**
Test Manager		Provides management oversight. Responsibilities include: ● planning and logistics ● agree mission ● identify motivators ● acquire appropriate resources ● present management reporting ● advocate the interests of test ● evaluate effectiveness of test effort
Test Analyst		Identifies and defines the specific tests to be conducted. Responsibilities include: ● identify test ideas ● define test details ● determine test results ● document change requests ● evaluate product quality
Test Designer		Defines the technical approach to the implementation of the test effort. Responsibilities include: ● define test approach ● define test automation architecture ● verify test techniques ● define testability elements ● structure test implementation
Tester		Implements and executes the tests. Responsibilities include: ● implement tests and test suites ● execute test suites ● log results ● analyze and recover from test failures ● document incidents

Human Resources		
Role	**Minimum Resources Recommended** **(number of full-time roles allocated)**	**Specific Responsibilities or Comments**
Test System Administrator		Ensures test environment and assets are managed and maintained. Responsibilities include: ● administer test management system ● install and support access to, and recovery of, test environment configurations and test labs
Database Administrator, Database Manager		Ensures test data (database) environment and assets are managed and maintained. Responsibilities include: ● support the administration of test data and test beds (database).
Designer		Identifies and defines the operations, attributes, and associations of the test classes. Responsibilities include: ● defines the test classes required to support testability requirements as defined by the test team
Implementer		Implements and unit tests the test classes and test packages. Responsibilities include: ● creates the test components required to support testability requirements as defined by the designer

10.2 Staffing and Training Needs

This section outlines how to approach staffing and training the test roles for the project.

[The way to approach staffing and training will vary from project to project. If this section is part of a Master Test Plan, you should indicate at what points in the project lifecycle different skills and numbers of staff are needed. If this is an Iteration Test Plan, you should focus mainly on where and what training might occur during the Iteration.

Give thought to your training needs, and plan to schedule this based on a Just-In-Time (JIT) approach—there is often a temptation to attend training too far in advance of its usage when the test team has apparent slack. Doing this introduces the risk of the training being forgotten by the time it's needed.

Look for opportunities to combine the purchase of productivity tools with training on those tools, and arrange with the vendor to delay delivery of the training until just before you need it. If you have enough headcount, consider having training delivered in a customized manner for you, possibly at your own site.

The test team often requires the support and skills of other team members not directly part of the test team. Make sure you arrange in your plan for appropriate availability of System Administrators, Database Administrators, and Developers who are required to enable the test effort.]

11. Iteration Milestones

[Identify the key schedule milestones that set the context for the Testing effort. Avoid repeating too much detail that is documented elsewhere in plans that address the entire project.]

Milestone	Planned Start Date	Actual Start Date	Planned End Date	Actual End Date
Iteration Plan agreed				
Iteration starts				
Requirements baselined				
Architecture baselined				
User Interface baselined				
First Build delivered to test				
First Build accepted into test				
First Build test cycle finishes				
[Build Two will not be tested]				
Third Build delivered to test				
Third Build accepted into test				
Third Build test cycle finishes				
Fourth Build delivered to test				
Fourth Build accepted into test				
Iteration Assessment review				
Iteration ends				

12. Risks, Dependencies, Assumptions, and Constraints

*[List any risks that may affect the successful execution of this **Test Plan**, and identify mitigation and contingency strategies for each risk. Also indicate a relative ranking for both the likelihood of occurrence and the impact if the risk is realized.]*

Risk	Mitigation Strategy	Contingency (Risk is realized)
Prerequisite entry criteria is not met.	<Tester> will define the prerequisites that must be met before Load Testing can start. <Customer> will endeavor to meet prerequisites indicated by <Tester>.	• Meet outstanding prerequisites • Consider Load Test Failure
Test data proves to be inadequate.	<Customer> will ensure a full set of suitable and protected test data is available. <Tester> will indicate what is required and will verify the suitability of test data.	• Redefine test data • Review Test Plan and modify • components (that is, scripts) • Consider Load Test Failure
Database requires refresh.	<System Admin> will endeavor to ensure the Database is regularly refreshed as required by <Tester>.	• Restore data and restart • Clear Database

*[List any dependencies identified during the development of this **Test Plan** that may affect its successful execution if those dependencies are not honored. Typically these dependencies relate to activities on the critical path that are prerequisites or post-requisites to one or more preceding (or subsequent) activities You should consider responsibilities you are relying on other teams or staff members external to the test effort completing, timing and dependencies of other planned tasks, the reliance on certain work products being produced.]*

Dependency between	Potential Impact of Dependency	Owners

*[List any assumptions made during the development of this **Test Plan** that may affect its successful execution if those assumptions are proven incorrect. Assumptions might relate to work you assume other teams are doing, expectations that certain aspects of the product or environment are stable, and so forth].*

Assumption to be proven	Impact of Assumption being incorrect	Owners

*[List any constraints placed on the test effort that have had a negative effect on the way in which this **Test Plan** has been approached.]*

Constraint on	Impact Constraint has on test effort	Owners

13. Management Process and Procedures

*[Outline what processes and procedures are to be used when issues arise with the **Test Plan** and its enactment.]*

13.1 Measuring and Assessing the Extent of Testing

[Outline the measurement and assessment process to be used to track the extent of testing.]

13.2 Assessing the Deliverables of this Test Plan

*[Outline the assessment process for reviewing and accepting the deliverables of this **Test Plan**]*

13.3 Problem Reporting, Escalation, and Issue Resolution

[Define how process problems will be reported and escalated, and the process to be followed to achieve resolution.]

13.4 Managing Test Cycles

[Outline the management control process for a test cycle.]

13.5 Traceability Strategies

[Consider appropriate traceability strategies for:

- *Coverage of Testing against Specifications — enables measurement the extent of testing*
- *Motivations for Testing — enables assessment of relevance of tests to help determine whether to maintain or retire tests*
- *Software Design Elements — enables tracking of subsequent design changes that would necessitate rerunning tests or retiring them*
- *Resulting Change Requests — enables the tests that discovered the need for the change to be identified*

and re-run to verify the change request has been completed successfully]

13.6 Approval and Signoff

[Outline the approval process and list the job titles (and names of current incumbents) that initially must approve the plan, and sign off on the plans satisfactory execution.]