

E-Gram Seva

# Test Plan v1.0

Team 22

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## Revision History

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# 1. Introduction

Software testing is more than just error detection.

Testing software is operating the software under controlled conditions to (1) verify that it behaves as specified (2) to detect errors and (3) to validate that what has been specified is what the user actually wanted.

- Verification is the checking or testing of items, including software, for conformance and consistency by evaluating the results against pre-specified requirements.
- Error Detection: Testing should intentionally attempt to make things go wrong to determine if things happen when they shouldn't or things don't happen when they should.
- Validation looks at the system's correctness i.e. it is the process of checking that what has been specified is what the user actually wanted. In other words, validation checks to see if we are building what the customer needs, and verification checks to see if we are building that system correctly. Both verification and validation are necessary, but different components of any testing activity.

The software test plan is designed to prescribe the scope, approach, resource and schedule of all testing activities. The plan specifies the features to be tested and the type of testing to be done. The main purpose of testing is to ensure that all modules are tested according to the specifications in the SRS and are working properly.

## 1.1 Test Deliverables

- Test plan
- Test Cases
- Sample inputs
- Resulting Outputs
- Error Logs
- Test report

## 2. Test items and Test Approach:

Each module is tested thoroughly by its developer. The modules are integrated only after each module is tested individually.

- Inputs are given by testing team for now.
- Meetings conducted regularly to discuss the errors detected in the software.

## 3. Features to be tested

- Registrations: The database should automatically update when a registration SMS is received in a prescribed format.
- SMS Updates: The SMS related to subscriptions of each subscriber should be sent automatically on a daily basis.
- User Account: The user is able to register online and an SMS of successful registration should be sent to user's mobile automatically. Accordingly, the database containing the user's information should be updated.
- Forgot password: In case of forgotten password, a new password is sent to the user's mobile.
- Change Password: The changed password should be updated in the user's database.
- Manage Subscriptions: The subscriptions should be updated in the database automatically.
- Language: The language translation should be accurate.

## 4. Types of testing to be performed

- Unit Testing: Each module will be tested by its respective developer by following the test case document and verify for the acceptance of the test cases.

- Integration Testing: After successful unit testing, the modules would be subjected to testing after being integrated with other modules to make sure that integration has not affected the individual functionality of the module.
- System testing: The system test will focus on behaviour of the system once all the modules have been integrated. User scenarios will be executed against the system to check for errors.
- Performance Testing: The system's performance will be tested under heavy stress/volume of users.
- Recovery testing: Under Recovery tests the system will be forced to fail under various ways and will be checked if proper recovery is performed. It is vitally important that all user data is recovered after a system failure & no corruption of the data occurred.
- Acceptance testing: This testing is performed in front of the client to ensure that the software functions as mentioned in the SRS.

## 5. Pass/Fail Criteria:

We have sample test cases and we check it to be "PASSED" or "FAILED".

A test case is PASSED when the real output is same as expected output otherwise it is marked FAILED. Expected outcomes are defined separately in each test case.

## 6. Test case Format

Test ID
Purpose
Prerequisite
Test Data

Steps
Expected Results
Error Messages

Where:

Test ID is a unique identifier for the test case.

Purpose explains the usage of the feature.

Prerequisite is the assumption that is related to the feature.

Test Data is the input entered by the user used for the test.

Steps are the statements that are required to execute in order to perform the test case.

Expected Results is a statement of what should happen once the test case has finished running.

Error Messages are the statements that will be displayed if the test case fails.

## 7. Completion Criteria

- **Suspension Criteria**

The test case for each level must run successfully before the next level testing can be executed. The developers will be called in case of errors.

- **Resumption Criteria**

Testing can be resumed only after the errors of the previous level are fixed. The whole module will be tested again.

- **Approval criteria**

The successful completion of unit, integration and system tests marks the end of the mentioned criteria.