**Test Generator**

Vision

Version <1.0>

Revision History

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**Vision**

# Introduction

The purpose of this document is to collect, analyze, and define high-level needs and features of the Test Generator. It focuses on the capabilities needed by the stakeholders and the target users, and **why** these needs exist. The details of how the Test Generator fulfills these needs are detailed in the use-case and supplementary specifications.

## Purpose

This document presents the vision behind the Test Generator.

## Scope

In this document you will find information about the Test Generator and also about the Panthera Platform.

## Definitions, Acronyms, and Abbreviations

I don’t have any acronyms, definitions or abbreviations yet.

## References

No references.

## Overview

As an overview, the rest of the document will present the problems raised by this project and the positioning related to them. After the positioning, the document will present the user descriptions and the stakeholders.

# Positioning

## Problem Statement

|  |  |
| --- | --- |
| The problem of | Creating tests for competitive programming problems |
| affects | Problem composers |
| the impact of which is | There are many contests held so a lot of people from this field would benefit |
| a successful solution would be | Being able to create tests for a problem from a user interface, without writing code  Being able to test a source for its correctness based on the generated tests |

## Product Position Statement

|  |  |
| --- | --- |
| For | Panthera Competitive Programming |
| Who | A test generator is needed for their future contests |
| The Test Generator | is a Tool |
| That | Automatically generates tests from the pattern chosen by the user |
| Unlike | Creating a custom piece of code to generate the tests |
| Our product | Generates the tests from a user interface |

This project is going to be useful to the contest owners since they will spend less time creating tests and testing them against their sources to determine the optimal parameters.

# Stakeholder and User Descriptions

The stakeholder will be the owner of the platform hosting the contest. The user will be the problem proposer for a certain contest, and he will be tasked with creating tests for those problems.

## Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Owner of Panthera | Owner of the Online Competitive Programming Platform | The stakeholder ensures:  that the system will be maintainable  that there will be a market demand for the product’s features  The stakeholder already has commission from a company to develop the platform and the additional utilities |

## User Summary

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Description** | **Responsibilities** | **Stakeholder** |
| General User | The general user will be the problem proposer. | Create problems  Write source to solve problem  Create tests for problem  Run the solution and check correctness |  |

## User Environment

The environment of the target user will consist of a computer alongside the application. In order to complete a task only one user is required, independent of the nature of the task. A complete task cycle consists of initializing a test, adding the test items, creating a required number of tests and running them against a source code. This depends if the user wants to do all the parts or if some parts are already finished and he is only interested in a part. This application will mostly run in a Linux environment as the main Panthera platform runs in this environment.

# Product Requirements

The application should not be very resource intensive. The only request is to have a python compiler.