**Capstone Project Document**

**Online Storytelling Generator System**

**Table of Contents**

**…**

**List of Figures**

**…**

**List of Tables**

**…**

**A. Introduction**

**1. Project Information**

* Project Name: **Online storytelling generator system**
* Project code: **StoryArt**
* Product Type: **Website Application, Web Service**
* Start Date: **January 14th, 2020**
* End Date: **April 30th, 2020**

**2. Introduction**

The world has evolved from sign language to the written language with the pupose to store, pass-on knowledge and inspire the next generation. The traditional way of telling story was one-way from the author to the reader, what if we can enable author to generate altenative ending, a story-line that can be spread to multiple direction instead of one direction?

We introduce a platform that enable author to generate interactive story, with audio, visual effect, and multiple storyline. Imagine, as an author, you can build a thrilling adventure, where your characters can have alternative actions of their owns and different storyline can evolve; and as a reader, you’re in an adventure where the character’s next destination is your choice. Your story will never be left untold.

**3. Current Situation**

There are many tools in the market that enable author to generate their stories but those tools can’t meet up their expectation and can’t express all the authors’ idea. With traditional stories telling, it seems not to be able to attract readers anymore, our platform support the tool for generating a story with interaction, audio, video effect, multi storyline and the power to publish it. The written stories can be used for many kind of aspects such as marketing, education, game, entertainment.

**4. Problem Definition**

Below are the disadvantages of the current situation:

* Lack of meaningful contents: Internet is filled with boring contents and many of these wasted our time.
* No interaction between visitor and story: Visitor usually read stories written by an author from start to end without interactions or deflect the story line. It makes the story became normally and boring.
* Low-educational contents: Children isn’t touch much by these online stories.
* Need of high-quality marketing content: People are bothered and even uncomfortable by dozens of advertisements per day in a website.

**5. Proposed Solution**

Our solution is web application named “Story Art”. It assists authors to post their story, advertisement or even game in a convenient and reliable place to make visitor relaxed and advertise their products.

**5.1. Feature functions**

* Provide tools to generate/create story.
* Search/suggest stories.
* View/interact stories.
* Manage stories.
* Rate stories.

**5.2. Advantages and disadvantages**

The advantages and disadvantages of the proposed solution:

* **Advantages:**
* Easy to search stories by category
* Provide the the creative ways for authors to generate the story. The authors can create their stories by their own way combining the screen, options, information, animation.
* Stories recommendation based on user’s hobby can bring to user many suitable, interesting stories.
* Brings out a whole new experience of reading stories to end users. Users will be interested in the storyline that lead them to surprise.
* A game can be created for the end users to play while reading the story.
* The authors can bring their business brands to the stories for marketing purpose so that their business can spread out to customers easily and naturally.
* Provide a channel for education: the website contains the stories that bring out the useful meaning to readers. They will learn a lot and enhance the knowledge by reading the high-educational stories.
* **Disadvantages:**
* Do not manage the content for support, advertising or other activities out our website in users’ stories such as: calling for support, donations, links, ...
* Do not check the content of users’ stories before publishing. The content will be checked after system received users’ reports.
* The format of creating the story may be complicated to authors because they have to generate the screen, information, animation along with the content they input.
* New users visit the website may not understand the idea of interactive storytelling, so the website need to serve the demo when users first come to website.

**6. Functional Requirements**

Function requirements of the system are listed as below:

* **Authentication and Authorization:**
* Authenticate and authorize users to use configuration and management functions**.**
* **Admin:**
* Manage users.
* Manage users’ stories.
* **Data Collector:**
* Collect data from users by giving them the questionnaires.
* Clean and transform data after collecting from the questionnaires.
* **Data Analytic:**
* Automatically analyze collected data by applying recommendation algorithms.
* **Users:**
* Search stories to read.
* Get story suggestions based on their questionnaires.
* Get story trends.
* Interact with the story while reading (select options, input information).
* Manage their own stories (create, publish, delete, deactivate, update).

**7. Role and Responsibility**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Full name** | **Role** | **Position** | **Contact** |
| 1 | Nguyễn Duy Thanh | Project Owner | Advisor | hello@nguyenduythanh.com |
| 2 | Bùi Đức Tài | Scrum Master | Leader | taibdse62836@fpt.edu.vn |
| 3 | Trần Hà Trâm Anh | Developer | Member | anhthtse141171@fpt.edu.vn |
| 4 | Nguyễn Tấn Đạt | Developer | Member | datntse61735@fpt.edu.vn |
| 5 | Nguyễn Viết Hải | Developer | Member | hainvse62107@fpt.edu.vn |

#### **1.3 Project Overview**

#### **1.3.1. Current Situation**

Below are the problems encountered in this project:

* **Absence of team member:** team member absence in meeting schedule because of class or work schedule, etc.
* **New technique:** Some team members are new to the techniques used in project. We need a lot of time to training.
* **Reliability:** It is hard to confirm information of user or product. We should build something to reduce risk can happen.
* **Lack of experience in write story:** no one in team members have ability to write a story, so we have some problem in how the story is created. We need a lot of time to research and read more stories.

#### **1.3.2. The Proposed System**

Our proposed solution is to build an online storytelling generator system named StoryArt to resolve the current situations by allowing user to create their own stories in creative way that can be interacted by readers, searching story by category, receiving recommended stories, managing their own stories, rating stories. As for administrators, they can manage stories by viewing stories’ reports, deleting stories. Besides, they can manage users by viewing user’ profile, receiving and processing all problems about users, banning users.

Our system consists of three main subsystems: Website for users to create, read, interact and manage their stories, web application for administrators and web services to process requests.

#### **1.3.3. Boundaries of the System**

The system can:

* Provide tools for users can create their stories in creative way.
* Allow users to interact with the story.
* Allow users to search for stories by name or multiple categories.
* Allow users to sort stories by amount of views, ratings in day, month, year, all time.
* Allow users to rating, report the story.
* Allow admin to manage users, stories.

The system cannot:

* Check the content in story before it is published.

#### **1.3.4. Future Plans**

* Current system only runs on website. We will support mobile application in the future.
* We will provide tools and staffs to check the content in story before publishing.
* Some charity activities in our website need to create donation method, they need to use some third-party website. We will design a system to help user can donate online:
  + Donate by user ‘s wallet: each user has personal wallet to store money in system.
  + Donate by third partner: user can pay online by third partner (Nganluong.vn, baokim.vn, payoo.vn, momo, …).

#### **1.3.5. Development environment**

**1.3.5.1. Hardware requirements**

* **For server**

|  |  |  |
| --- | --- | --- |
| **Hardware** | **Minimum Requirement** | **Recommended** |
| Internet Connection | Cable, Wi-Fi (8 Mbps) | Cable, Wi-Fi (32 Mbps or more) |
| Operation System | XP, Vista, 7, 10, Window Server 2008 | 10, Window server 2008 |
| Computer Processor | Intel® Xeon ® 1.4GHz | Intel® Xeon ® Quad Core (12M Cache, 2.50 GHz) or above |
| Computer memory | 4GB RAM | 8 GB RAM or more |
| Storage space | 1GB | 5GB or more |

Table 2 - Hardware Requirements for Server

* **For PC**

|  |  |  |
| --- | --- | --- |
| **PC** | **Minimum Requirements** | **Recommended** |
| Internet Connection | Cable, Wi-Fi (4 Mbps) | Cable, Wi-Fi (8 Mbps or more) |
| Operating System | Window 7, IOS 9 | Windows 10, IOS 10. |
| Computer Processor | Intel® Core i3 1.4GHz | Intel® Core i5 2.50GHz or above |
| Computer Memory | 4GB RAM | 8GB RAM or more |
| Web Browser | Chromes (v42 or higher) | Chrome latest stable version |

Table 3 - Hardware requirement for PC

**1.3.5.2. Software requirement**

|  |  |  |
| --- | --- | --- |
| **Software** | **Name / Version** | **Description** |
| Operation System | Windows 10 | Operating system and platform for development |
| Environment | Java EE 8.0, Node v10, npm v6 | Specification for developing web application and mobile application |
| Modeling tool | StarUML, draw.io | Used to design diagram |
| IDE | IntelliJ IDEA 2019.1.4, Visual Studio Code, Microsoft SQL Server 2014 (SQL) | Programming tools |
| DBMS | SQL Server 2014 | Used to create & manage the database for system |
| Source control | Github/Git cmd | Used for source control |
| Web browser | Chrome 69 or above | Testing browser |

Table 4 - Software Requirement