Project plan

Secure Stream (or Video) Authentication

1. EXECUTIVE SUMMARY

A project plan document is very vital in the development of any proposed project. It gives the step by step, as well as the detailed guideline for the project at hand. With project plan document the team experience the flexibility and gets it easy to undertake the project. This goes a long way to help the team to meet the best target during the verification and validation process. Project plan guides the team through the various activities, tasks to taken, deliverables and the duration needed to complete the entire task. In project plan document the timeframe required to deliver the project, together with the resources that would be used in the period of the project and subsequent milestones are clearly identified. In this project, a well able team of three persons are undertaking it with the objective of creating a media player. With the increase of innovation and technological advancement in the IT world, our team will like to meet a standard by making the proposed software that is media player to be able to convert a file from one format to another. The software in its dynamic form will be able to provide security for any file (streaming/video) that is played using the created media player software. The software will be created using the appropriate programming language with suitable algorithm that helps to meet the requirement. During the analysis and the design stages, the Rational Unified Process (RUP) development methodology would be implemented as well as the implementation of the designs would be adopted using the Unified Modeling Language (UML) approach. Black and White box testing would be implemented throughout the software development. However, other testing activities would be carried out in various phases of the project to ensure correct delivery of the project. Risk management would be taken so as to avoid serious or fatal errors during the development process. The entire process and milestone of the project would be guided by a Gantt chart that will keep track of the project schedule and deliverables. A website would be created to keep track of the stage to stage activities and the progress of the project. It will also have the necessary documents regarding the project. It will finally serve as the official site to showcase our product. For appropriate and accurate project work, meetings would be held regularly to that the main goals and the objectives are met at the end of the entire project.

2. INTRODUCTION

The absence of media player in computer systems questions the relevance of the whole system. This has made it a must include feature in computers; being it desktop, laptop, palmtop, notebook etc. with the higher growing of businesses and technological advancement, media player software has become very vital. It supports advertisements through both videos and audios on the computer. Besides its commercial purposes, it serves as the sole channel for entertainment such as movies and music. Our team is therefore embarking on this project to provide a standard player with secured file. The altering of video files has become a common activity in the IT world. This has led to most streams or movies being not authentic as they ought to be. With such a secured player, the problem of altering streams or videos would be solved. In addition to that, the create player will have the ability to convert a particular file from one format to another. The proposed software would be created as a stand alone application. It can therefore be installed on windows platform.

3. PROJECT OBJECTIVE

The proposed project; Secure Stream (or Video) Authentication requires a player for its implementation. However, there are a number of varieties of media players in the market. It could be in a way that supports a particular format but cannot convert to another format. The proposed project aims at solving such problem of converting video file from one format to another. The user does not need to change the file to be played format. The software does that by itself. Its uniqueness comes as a result of the security implementation which is had to find out there. It will make all videos played on it keep its authentication. A smart detection of any altered video would be displayed for the user to know that that video is no more authentic.

4. PROJECT SCOPE

The proposed project's widest scope comprises of the creation of a media player that performs some specific functions. The functions are: first of all, the player should be in particular format. It should be able to convert the file or video being played into another format. Secondly; any video being played should be secured. This will call for the introduction of digital security implementation. Finally the software will give a signal or a message that shows that the video being played is no more authentic. The project will further allow users to apply a subtitle or add or remove a couple of frames from the stream, and it will lead to a correct detection.

5. METHODOLOGY

The project development methodology to be used in this Project is the Rational Unified Process (RUP). The process comes in four different phases; namely the Inception phase, Elaboration phase, Construction phase and the Transition phase. The project is implemented in respective of the order of the phases.

5.1. INCEPTION PHASE

The Inception Phase of the Project will have the following activities and outcome:

- Project scope
- Architecture requirements
- Project plan
- Project diary
- Analysis
- Initial design

5.2. ELABORATION PHASE

At this stage, the activities and outcomes expected are:

- Deploying the Architecture drawn
- Detailed analysis and requirements met
- Iteration plans as a guide during the software construction
- User manual.
- Technical manual
- Understanding validation and verification before the construction begins

5.3. CONSTRUCTION PHASE

In the construction phase of the project, the following deliverables are to be delivered before the final phase:

- The development of the project begins here with the coding.

- Testing components begin in this phase as the coding starts.

- Testing is performed to avoid bugs and errors.

- The iteration process to check to see that we are on track to achieve the goals is checked.

- The user manual is updated due to the changes made.

- The technical manual is updated as well due to the changes made.

- The deployment plan of the project is implemented.

5.4. TRANSITION PHASE

In the transition phase, the following processes are undertaken:

- The software is tested to ensure that various deliverables are in place in stakeholder's environment.

- The project diary showing the truck of the project is delivered.

- The final user manual is completed and released.

- Final documentation of the entire project is released as well.

- The final product is then released after all deliverables are met.

6. PROJECT SCHEDULE

The project is expected to last for duration of eight months. It would be divided into two parts or two sections which the first section is to be completed by August 2010. The final and the second part are to be completed on April 2010. A Gantt Chat for the various schedules of the first section can be seen at the appendix.

7. DELIVERABLES

The written documents which would be delivered as the sole governing documents for the entire development of the project are as follows:

- Project plan
- Project Diary
- Preliminary user manual
- Preliminary technical manual
- Final User manual
- Final Technical manual
- The software code
- The project prototype
- The project Website

8. TEST PLAN

8.1. BLACK BOX TESTING

Black box testing is performed without considering the knowledge of the main design or the code of the software project. Rather it focuses on testing the basic requirements and the functionalities of various aspects of the developed software.

8.2 WHITE BOX TESTING

White box testing process is mainly carried out by software developers or people who have the knowledge in the field of coding or programming.

9. SYSTEM ANALYSIS PLAN

Under the analysis plan the Unified Model Languages (UML) would be implemented.

- Use Case Diagram.

- Class Diagram

- Activity Diagram.

- Sequence Diagram

- State Diagram.

10. SYSTEM DESIGN PLAN

The System Design will be expressed using Software preliminary User Interface and labels to help in the explanation of the various functions. The interface as well would also be implemented using the Unified Modeling Language diagrams described in the system analysis phase.

11. RISK MANAGEMENT

Since the project is to last for a longer period of time, some unexpected incidences are bound to occur in the cause of the entire project. Risk management plan is therefore to be considered and taken seriously. For instance, there could be a problem with the hardware which could be used for the project development. It could be an issue with the group members; where one wants to dropout.

11.1. MEETING REGULALY

Regular meetings would be held at least two times a week. However, emergency meetings could be held when necessary. This will help to control the entire project and to enforce risk management.

12. CONCLUSION

The project plan serves as a guide for the entire project. It depicts the preliminaries of the project to be developed there by making it easier to meet the requirements specification of the project. The project plan phase discusses mainly the project execution and control which has a direct link to the project progress, various stages and stakeholder's or user's requirements. The plan further shows the allocation of roles, duties and all responsibilities that needs to be carried out by the team. Project specification have been identified, it gives a brief description of what the project is all about, the objective which gives a better understanding of the of the entire project, as well as the scope and main goals of the team.