**Software Project Management**

**LAB 4**

|  |  |  |
| --- | --- | --- |
| **#** | **Name** | **Student number** |
| 1. | Fadi Salback | 100649987 |
| 2. | Sarthak Sharma | 100604428 |

**1.** **Mention at least 2 risks and their respective counter measures.**

In today's market competition is very high, big businesses as well as small are always attempting to find ways to improve and release content to customers in order to stay on top or attempt to climb the ladder of having well known and established products. However, more importantly it is to increase profit for the company with this ever growing competition it is crucial that we the makers of an online music streaming app create the best one out there. In order to do this our app must be the easiest to use, have the best features and most importantly we must make the user feel that it is fun to use our app. In order to achieve this; we must address possible risks and counter measures that we must take in order to make sure our app is in the best condition when released to appeal to the customer.

One risk may be that when our product is released it may go unnoticed in the market in the beginning. This happens to a lot of products released whether they are software related or not, it does not necessarily mean that our product is not “good” or disliked by the customers it could just be shadowed by other music streaming apps that have become very popular in the past years. Sometimes people prefer to stay on older platforms due to comfort and the fact that they are used to using the same app over and over again. In order for this not to happen with our app it is essential that pre-release our app is advertised properly and we make sure that we hit the targeted age groups that would use an app like this the most. In our advertisement it is crucial to make our message clear and must make the end user believe that this app is much better than any of the other currently up and running music streaming apps. A good advertising strategy would be to attempt to get famous artists to speak about our app in order to lure customers into believing in this product.

A second risk may be that we fail to meet important deadlines while working on this project which will cause drastic setbacks in the development cycle of the project. Some tasks may be extremely dependent on each other for example if one team is in charge of working on a cache where customers are able to store the music they like so they are able to listen to it offline this cannot be accomplished before another team finishes their task of adding music to the online stream of our app. A lot of our work methodologies and techniques in creating this app relies on other projects to be completed before moving onto the next one. We cannot afford any delays or else it will create a sort of domino effect and cause projects way down the line in our development to be greatly delayed. A countermeasure to avoid unnecessary setbacks is to have weekly meetings where a representative of each set associated team will prepare a report specifying the work that has been done and that needs to be done in order to stay on track. Each project will contain diverse teams ranging from equal amounts of amateur to experienced workers this way if a problem arises then an experienced person working within this project is able to help quickly solve the problem rather than have someone with less experience waste many hours on trying to solve it.

**2.**  **The resources you will have for your project. Specifically, these resources are your team (or team members). List at least 3 teams/team members and assign activities from your activity diagram to each one of them**

Setting up a good team and hiring the right employees that maximizes efficiency in the development of our app is the most important step. This ensures our app is delivered to the customer as intended and free of major flaws that could seriously damage the reputation of our app. The most important ones are highlighted and explained below.

**Marketing Team**

The marketing team’s goal is to make our product look as polished and as perfect as possible while promoting our music app to the public. Their main focus is to drive sales of the product. They should have software experience in order for them to understand what they are talking about and to be able to address the right information to the customer. The marketing team is in charge of knowing how to promote the product to different age groups in order to get the best response from each. The team should have a marketing director who has lots of experience and overseas all work and assures that his team members are taking all the necessary steps to properly get the product out there to the public

**Front End Developers**

Having an experienced front end development team is crucial for our products success. This team will focus on keeping the product simple, easy and fun to use. They are to abide by a guideline which entails that everything needed to be done on the app by the user should be done in 3 clicks/presses or less. It is obvious that when someone is using our app they do not want to take many steps in order to listen, share or download music. The front-end developers must have high expertise on HTML, CSS as well as Javascript. Creating a polished GUI is of highest priority in this team.

**Back End Developers**

The back-end developers will serve a crucial role in the success of our program. Only the best possible back end developers are to be hired because we cannot afford to make too many mistakes as every mistake here could be deemed as significantly impactful in the progress as well as post deployment of our program. The back-end developers are to ensure that data or services requested by the customer is to be delivered with no corruption, loss of data or too much delay. They are responsible for building the very core of our databases in an encrypted way which will track all our customers sensitive account information safely. Alongside this they are also responsible for storing the artists that sign up with us in a secure and easily accessible database. Communication between the back-end developers and the front-end developers are key to the success and nourishment of the development process. They are to work in offices near to each other and maintain constant communication as well as ensure that their work is documented precisely so that what has been done can be reviewed in weekly meetings

**Testing Team**

The testing team is in charge of maintaining the integrity of our product. They are responsible for testing all the functions that are made by the front and back end developers as well as creating necessary interfaces. Testing methods may include using automated and/or manual testing. Similar to the rest of the teams’, a high level of expertise in this position is mandatory as we cannot risk having any failures that may disrupt the work progress. The test team is to analyze how the system should properly behave given certain inputs. Aside from ensuring the system works properly they are also to experiment with the system by attempting to break the code (such as acting as a hacker or inputting input that was never meant to be inputted and observing how the system behaves) and making sure that no lethal information is leaked that could ruin the integrity and security of our system. Furthermore, the testing team is extremely responsible for the maintenance and well being of the project as well as reassuring that the system is ready to be deployed to the customer in the final phase. **With testing comes great responsibility!**