Software Project Management Lab 3 (3490U)

`

Student Names	Student ID's
Craig Savage	100615968
Walid Safi	100623815
Mahum Khokhar	100622252

Lab Instructions:

For this lab, you'll continue writing up documentation for your project. To fully understand these instructions, you'll need to first cover Software Project Estimation, Activity Planning and Risk Management in the lectures. According to the course outline, these will be covered before your deadline.

Software Project Estimation

Albrecht /IFPUG Function points method

Function Types	Complexity of Function	Function Points
EI	High	6
EO	High	7
EQ	Medium	4
LIF	Medium	10
EIF	Low	5

Total FP = 32

Total of 4 FPs delivered/day

Total time taken = 32/4 = 8 days

COCOMO

Utilizing the constructive cost model (COCOMO) we are able to estimate the cost and the effort of our system. Since our system is reasonably complex, and resources are readily available (libraries) from past projects and problems, our system was determined to be semi-detached

The Estimated LOC in Kilo-LOC is 5

KLOCK = 7
a = 3.0 (semi-detached constant) Estimated Effort
b = 1.12 (semi-detached constant) Estimated Effort
a = 2.5 (semi-detached constant) Estimated Effort

b = 0.35 (semi-detached constant) Estimated Effort

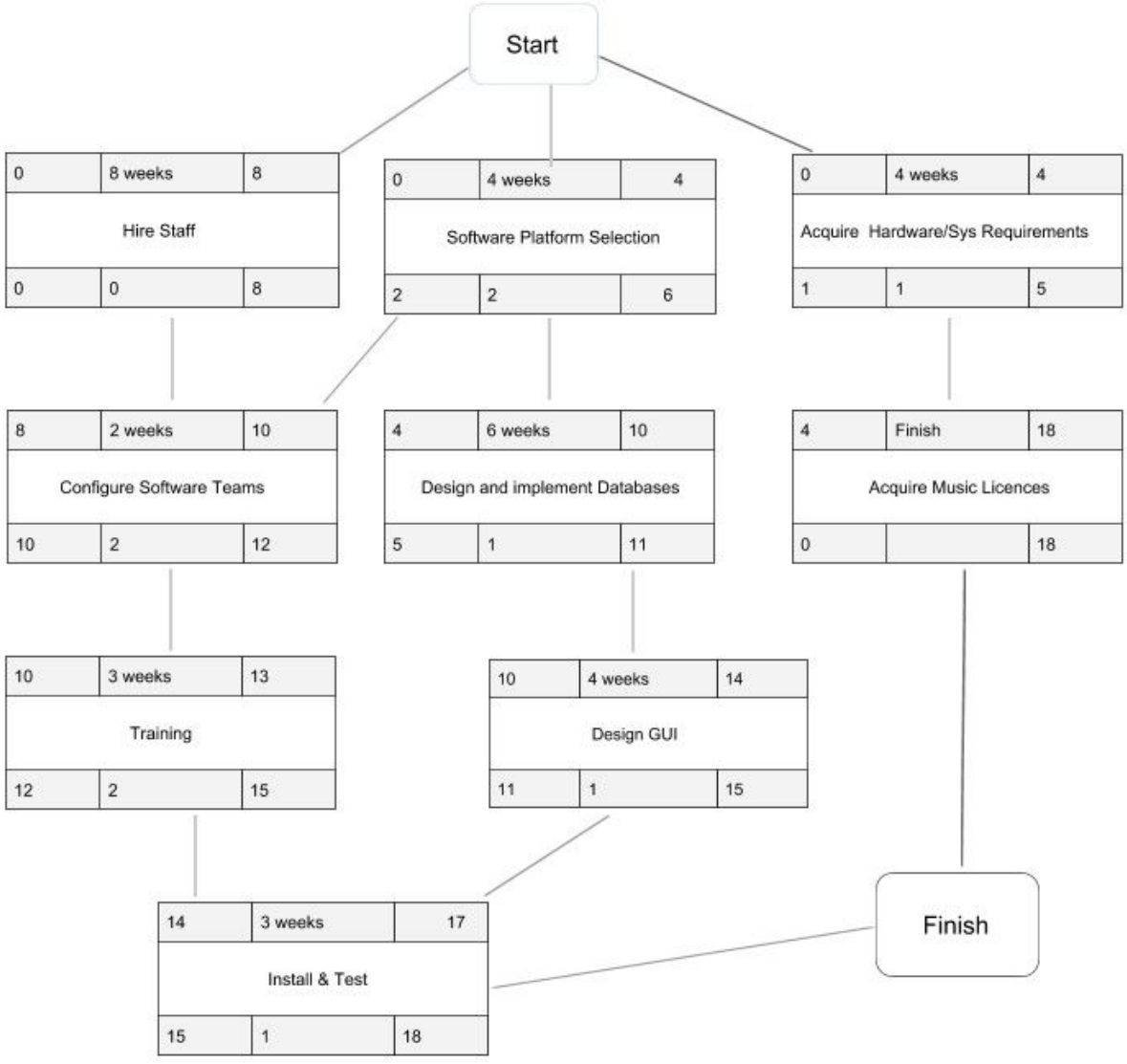
Estimation of Effort: $E=a(KLOC)^b$ person months

$E = 3.0(7)^{1.12} = 26.5$ person months

Duration in months = $a(E)^b$

Duration = $2.5(25.6)^{0.35} = 7.7$ months

Activity Diagram



Activity	Description
Hire Staff	Hire developers, marketers, specialists etc
Software Platform Selection	Determine which software platforms (Operating systems, Android, IOS) the music hub will be available in
Acquire Hardware/System Requirements	Determine minimum hardware and system requirements to run the software
Acquire Music Licences	Negotiate contracts to acquire licenses to provide users with music from artists and provide protection to artists music
Configure Software Teams	Allocate resources and staff into specialized teams to handle different tasks
Design and implement Databases	Create a database to store music, user information, and analytics (views, subscriptions)
Training	Train staff
Design GUI	Create a GUI for users to search, add and play music and subscribe to musicians
Install & Test	Install and test the software and make changes where applicable

Associated Risks

Risks	Countermeasures
Knowledgeable staff	We will have a very technical interview process to ensure that employees are proficient with the required software languages used.
Productivity / Collaboration	We will share the workload by creating small teams with our employees. This will allow the employees to motivate the members in their group since it is a collaborative effort, thus resulting in increased productivity.
Meet deadlines	The project managers will be inc charge of creating a very strict delivery timeline and hold progress meetings with each team at the end of every delivery date to ensure that everyone is on to of their work.

Software Consistency	To ensure that our software is consistent throughout all forms of devices, we will hire software testers to test every aspect of our software throughout various different devices.
Protecting Songs	We will ensure that users aren't able to freely download songs to protect the artists from their music being leaked. To do this we will encrypt the files to a special file type that only works with our software so that users can't download mp3 versions.
Account Security	We will be sure to take every necessary step towards ensuring that there will be no security leaks to protect users information and privacy. This will be our top priority.