

CSC 3380

Aymond

Announcement

- Project kickoff - TODAY

Section 1

1/27/2020



PLEASE
SILENCE
YOUR
MOBILE DEVICE

Welcome!

areVIBE

The Problem

- Revibe and the music industry as a whole are living through an interesting time as social media and music streaming both reach their prime
- This intersection poses an interesting problem; what is the best way to combine music and social?

Some Ideas

- ◉ Music Direct Messaging
- ◉ Social Playlisting
- ◉ Social Listening
 - shared queues, real time, etc
- ◉ Social recommendations
- ◉ Reimagining playlists
- ◉ MySpace style blogs
- ◉ News Feed for music
- ◉ More “who else is listening” type features
 - Apple has who else is listening
 - Spotify has Friend’s are currently listening to on Desktop

Constraints?

- There are tons of possibilities for this
- Teams have the option of designing an entire platform from the ground up
 - including choosing whether it should be an app, website, etc.
- Be creative!
 - You need to generate novel, new, and innovative ideas
 - Then you can create designs that will can make them work

Class Project

- ◉ The focus of this project will be on DESIGN rather than implementation
- ◉ Although, you will implement a **prototype** of your approach and demonstrate its viability as a potential solution/product
 - Implementation of key features
 - Demonstrate the viability of the approach/design
 - Want to convince the customer that they should invest in your project

Teams

- Students are expected to work together, divvy up responsibilities, and share resources in the implementation of the project
 - All team members are required to design components for the project solution
 - All team members are required to contribute to the development of the prototype
 - All team members are expected to participate in the final in-class presentation
- Every student is expected to do their fair share of work on the project
 - A student's project grade will be proportionally adjusted based on level of effort expended on the project
 - A student cannot successfully complete this course without substantive contribution to the team project

Team Leadership

- The team must select a leader that will take on the responsibility of coordinating the team efforts
 - The team leader is expected to shoulder leadership responsibilities **in addition** to project responsibilities
 - If the team leader provides good project leadership, they will get extra project points for their leadership efforts
 - If the team leader fails to effectively lead the team, the team leader can lose project points
 - The team may choose to change leadership for different Milestones, upon instructor approval
- Teams will be assigned a graduate mentor
 - Each TA will mentor 7 teams
 - Teams are advised to check in with their mentor at least once a week
 - The mentors will act as liaisons between teams and Revibe

Project Grade Calculation

40% of overall grade

- Project grades are calculated as follows:

$$P \times \sum_i (Weight_i \times Grade_i \times PercentContribution_i \times NumTeamMembers \times L_i)$$

- Where $i \in \{\text{Milestone 1, Milestone 2, Milestone 3, Milestone 4, Final Presentation, Post Mortem}\}$
 - $Weight_{\text{Milestone 1}} = 0.1$
 - $Weight_{\text{Milestone 2}} = 0.25$
 - $Weight_{\text{Milestone 3}} = 0.25$
 - $Weight_{\text{Milestone 4}} = 0.25$
 - $Weight_{\text{Final Presentation}} = 0.1$
 - $Weight_{\text{Post Mortem}} = 0.05$
- $Grade_i$ is the grade awarded to the team project for Milestone i
- $PercentContribution_i$ is the percentage that an individual team member contributed to the milestone
 - It is expected that every team member will contributed approximately the same amount to each milestone, but this factor corrects for the situation when contribution is not equitable within a team
 - This factor is determined by a survey of team members
- $Leadership Factor_i$ is the leadership offset for Milestone i (either 1.15, 1.0, or 0.85)
 - Note, the leadership factor is calculated for each milestone, so the team may choose to change leadership for different milestones
- P is the presentation factor
 - 1, if the student participates in the final in-class presentation
 - 0.9, if the student does not participate in the final in-class presentation

Project Milestones

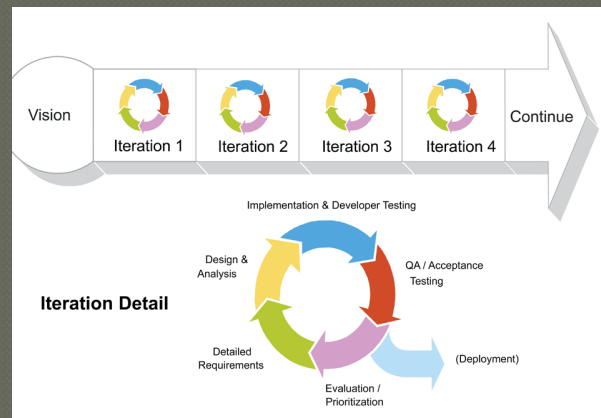
- Milestone 1: Stories & Requirements (10%)
 - Tuesday 2/4, 11PM
- Milestone 2: Architecture Design (25%)
 - Due Friday 2/21, 11PM
 - During class mentor presentation, Monday 3/2
- Milestone 3: Component Designs (25%)
 - Tuesday 3/17, 11PM
 - Work to have each team member take lead on at least one component design
- Milestone 4: Working Prototype (25%)
 - Tuesday 4/21, 11PM
- Final in-class presentations (10%)
 - Wednesday 4/22, Monday 4/27, and Wednesday 4/29
- Project Post Mortem (5%)
 - Friday 5/1, 11PM



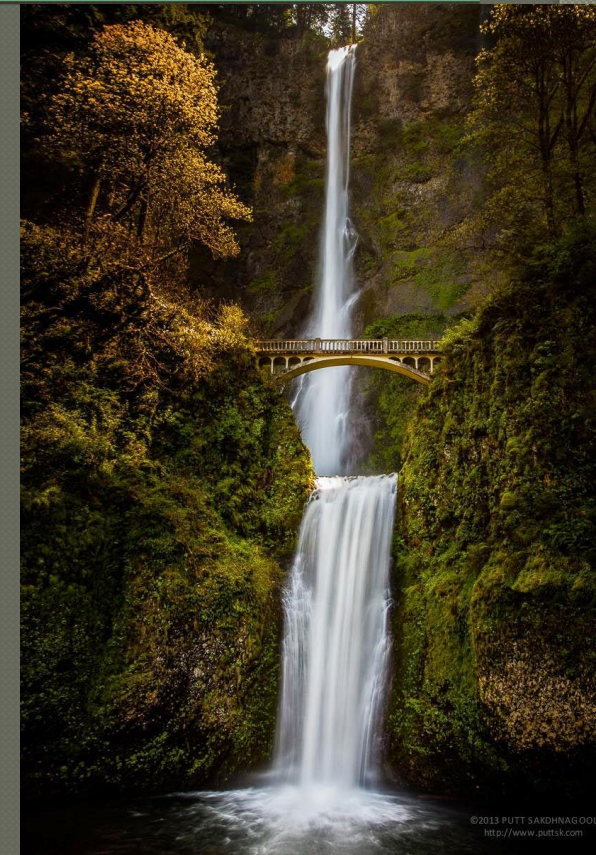
These milestones look suspiciously like the waterfall model

Project Lifecycle

- **Don't give into the temptation of using the waterfall project lifecycle!**
- You should develop your product using an iterative development lifecycle



- For each milestone
 - Your project portfolio will increase in scope
 - Previous sections should also morph over time, as you revisit phases in your iterations



These milestones look suspiciously like the waterfall model

Milestone 1: Stories & Requirements

● Project Portfolio

- Description of problem & proposed solution
- Team Structure
 - Team member/ role(s)/ responsibilities
- Requirements
 - Stakeholder Issued Requirements
 - Epics [Revibe is willing to review your Epics prior to Milestone 1, if you get them to them early enough]
 - User Stories
 - Acceptance Criteria

Milestone 2:

System Architecture

- **Project Portfolio**

- Description of problem & proposed solution
- Team Structure
 - Team member/ role(s)/ responsibilities
- Requirements
 - Stakeholder Issued Requirements
 - Epics
 - User Stories
 - Acceptance Criteria

- **Design**

- **System Architecture [in Enterprise Architecture]**
 - User I/O
 - External Data Sources
 - Major Components
 - Interfaces
 - Data Flow

- **Source Code**

- eap file(s) of System Architecture
- Zip of all source code implemented at this point

Milestone 3:

Component Designs

● Project Portfolio

- Description of problem & proposed solution
- Team Structure
 - Team member/ role(s)/ responsibilities
- Requirements
 - Stakeholder Issued Requirements
 - Epics
 - User Stories
 - Acceptance Criteria
- Design
 - System Architecture in Enterprise Architecture
 - User I/O
 - External Data Sources
 - Major Components
 - Interfaces
 - Data Flow
 - **Component Designs in Enterprise Architecture**
 - **Interfaces**
 - **External Data Sources**
 - **Subcomponents, as applicable**
 - **Data Flow**
 - **Control Flow**

● Source Code

- eap file(s) of System Architecture
- **eap files of all component designs**
- Zip of all source code implemented at this point

Milestone 4: Working Prototype

● Project Portfolio

- Description of problem & proposed solution
- Team Structure
 - Team member/ role(s)/ responsibilities
- Requirements
 - Stakeholder Issued Requirements
 - Epics
 - User Stories
 - Acceptance Criteria
- Design
 - System Architecture in Enterprise Architecture
 - User I/O
 - External Data Sources
 - Major Components
 - Interfaces
 - Data Flow
 - Component Designs in Enterprise Architecture
 - Interfaces
 - External Data Sources
 - Subcomponents, as applicable
 - Data Flow
 - Control Flow
 - **Class Diagrams of Design Patterns Employed**

● Source Code

- eap file(s) of System Architecture
- eap files of all component designs
- **eap files of class diagrams**
- Zip of all source code implemented

Final Presentation

8 minute time limit

● Project Portfolio Presentation

- Description of problem & proposed solution
- Team Structure
 - Team member/ role(s)/ responsibilities
- Requirements
 - Revibe requirements
 - Epics
 - Key user stories
- Design
 - System Architecture in Enterprise Architecture
 - Component Designs in Enterprise Architecture
 - Class Diagram(s) of patterns employed

● Working Prototype Demonstration

- Key features of product

Project Post Mortem

- Final Project Portfolio addendum:
 - Lessons Learned
 - Project victories
 - Project problems
 - Root causes of problems
 - Problem mitigation strategies

Once you have a team of 6: First Steps

- Choose your team structure, which must include a team leader
 - The team leader can be responsible for coordinating the team for the duration of the project or for one or more milestone
- Pick a team name
- Due date: ??

Collaborative Development

- Teamwork
- Collaboration Infrastructure
 - Philosophy
 - Process
 - Tools

Team Dynamics

◉ What makes a team?

- Working together to reach a goal
- Clearly defined roles and responsibilities
- **Mutual respect**

◉ Team Structure

- Pod
- Hierarchical (necessary for teams > 6)

Team Dynamics: Conflict Resolution

- ◉ Consensus building is best
- ◉ Majority Vote
- ◉ Decision maker
 - Willing to make decisions
 - Makes informed decisions after weighing “all” options
 - “Sticks” to decision, but willing to change in light of **new show-stopping** information

Team Dynamics: Why Teams Succeed

- Attitude

- Care/Committed
- Don't play political games

- Ability

- Know what is expected
- Prepared
 - Education
 - Experience
 - Tools

- Team members support team members

- Collaboration vs. competition
- It's all about getting the mission accomplished
- Compassion during temporary personal crisis

Let's Pick a Team!!

- If you have a 6 member team, then you're good to go – use this time to get started
- If you have a team of less than 6 members, try to fill in your remaining team openings or merge with other small teams to make your 6
- Don't have a team, yet? Look to get on a team with vacancies or pull together a new one with others
- **Leave me the list of your team members before you leave today.** I will merge teams or add students, as needed to fill in teams.