MICHIGAN STATE
UNIVERSITY

03/28: Intellectual Property

The Capstone Experience

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From Students…
…to Professionals

Caveat Emptor

- Opinions Expressed
  - My Own
  - Do Not Represent MSU
- Not an Attorney
- No Warranty

THIS LECTURE IS GIVEN IN THE HOPE THAT IT WILL BE USEFUL, BUT WITHOUT ANY WARRANTY. IT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LECTURE IS WITH YOU. SHOULD THE LECTURE PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

Lots of Variables

- Who Your…
  - …Employer Is
  - …Customers Are
- Very Different Rules/Laws/Policies
  - Industry
    - Privately Held
    - Publically Held
  - Government
  - Government Contractor
  - Educational Institution
  - Etc…

Intellectual Property

- "Ideas" Worth Money
  Must be able to "fix in a tangible medium".
  - How to Make Something
  - How to Do Something
  - Work of Art (Music, Movie, Photo, Painting, Novel, Etc.)
  - Pharmaceutical
  - Process
  - Algorithm
  - Etc…
- Must Protect
- Types of Protection
  - Copyrights
  - Patents
  - Trademarks
  - Trade Secrets
  - Etc..
- Check with an IP attorney.

Patent vs Copyright

- Patent
  - Own "Idea" For 20 Years
  - Protect Via Patent Process
  - Harder to Obtain
  - Easier (but not Easy) to Enforce Protection
- Copyright
  - Own "Text" For Life of Author + 70 Years
  - Protect Via Copyright
  - Easy to Obtain
    - Automatically
    - "© 2019 by Wayne Dyksen. All Rights Reserved."
    - By Formally Registering
  - Harder to Enforce Protection

Check with an IP attorney.

What's the motivation for granting patents and copyrights?

- Happy Birthday Song
  Patty and Mildred Hill, 1893
- Software

Patent vs Trade Secret

- Patent
  - Own "Idea" For 20 Years
  - Protect Via Patent Process
  - Easier to Enforce Protection

- Trade Secret
  - Own "Idea" Forever
  - Protect Via Non-Disclosure and Non-Compete
  - No Enforcement Protection if Secret Disclosed

Interesting Examples of Trade Secrets
- Coke Formula
- Houdini's Escapes

IP Enforcement

- Laws
  - US State & National
  - Non-US National
  - International
- Big Problem
  - Counterfeiting Rampant
    - Software
    - Drugs
    - Music, Movies, Etc.
    - Clothing & Accessories
    - Etc…
  - Stealing Rampant
  - Enforcement Non-Existent in Some Countries
  - Software Alone Big $$

Non-Disclosure Agreement (NDA)

- You agree not to misuse company information.
  - Trade Secrets
  - Copyrights
  - Confidential Information
    - Product Plans
    - Software
    - Schematics
    - Etc…
  - Etc..
- Misuse Includes…
  - …Disclosing
  - …Selling
  - …Using for Your Startup Company
  - …Using at Next Employer
  - Etc…

Intellectual Property Agreement (IPA)

- You agree to assign all IP created to your employer.
  - Copyrights
  - Patents
  - Trade Secrets
  - Etc…
- Agreements Vary in Scope
  - Relationship of IP to Your Job
  - Time
- What happens if you…
  - …create patented IP that earns your employer $1B?
  - …leave your employer to patent an idea on your own?

Non-Compete Agreements

- You agree not to compete with your employer.
- Agreements Vary in Scope
  - Relationship of Employer Markets
  - Position
  - Time
- May Affect
  - Moonlighting
  - Career
- Can Be Very Restrictive

Employment Agreements

- Required as Condition of Employment
- Agreement May Cover
  - Non-Disclosure
  - Intellectual Property
  - Non-Compete
  - Etc..
- Agreements Vary
  - Employer
  - Position
- Probably Non-Negotiable for You

Remedies

- What happens if you violate an agreement?
- Agreements Vary
  - Function of
    - Employer
    - Position
    - Etc.
  - Can Be Severe
  - Should Be Taken Seriously
- Often Monetary Damages Levied Against
  - You Personally
  - Your Startup Company
  - Your New Employer
- Not to Be Taken Lightly

Typically pursued in civil courts vis-à-vis criminal courts.

Seek Professional Advice

- If your idea is valuable, protect it.
- Invest
  - Time
  - Money
- Consult
  - Trusted, Experienced Mentors
  - State and Local Development Authorities
  - IP Attorney
- In Advance

What's ahead?

- ~~W09, 03/12: What's ahead?~~
- ~~W09, 03/14: Ethics and Professionalism~~
- ~~W10, 03/19: Design Day and the Project Videos~~
- ~~W10, 03/21: Camtasia Demo~~
- ~~W11, 03/26: Team Status Report Presentations~~
- ~~W11, 03/28: Intellectual Property~~
- W12, 04/02: Team Beta Presentations
- W12, 04/04: Team Beta Presentations
- W13, 04/09: Team Beta Presentations
- W13, 04/11: Team Beta Presentations

What's ahead?

- W14, 04/16: Team Status Report Presentations
- W14, 04/18: Team Status Report Presentations
- W15, M, 04/22: Project Videos Due (Noon)
- W15, Tu, 04/23: Watch Project Videos
- W15, W, 04/24: All Deliverables Due (Noon)
- W15, W, 04/24: Team Evaluation Forms Due (Midnight)
- W15, Th, 04/25: Watch Project Videos
- W15, Th, 04/25: Design Day Setup
- W15, F, 04/26: Design Day
- W16, Th, 05/02: Watch Project Videos (5:45 p.m. – 7:45 p.m.)

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Beta Presentation [Project Title 36pt]

The Capstone Experience

Team [Team Name 24pt]

[Team Member 1 16pt]
[Team Member 2 16pt]
[Team Member 3 16pt]
[Team Member 4 16pt]
[Team Member 5 16pt]
[Team Member 6 16pt]

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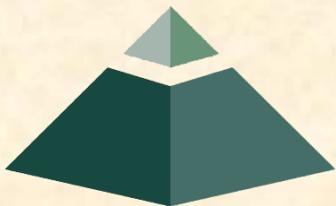
From Students…
   …to Professionals

Project Overview

- Point 1

- Point 2

- Point 3

- Etc...

System Architecture

Include your system architecture diagram from your Project Plan presentation.

Update or redo your system architecture diagram if you were asked you to do so in your alpha presentation feedback.

Delete this textbox.

[Title of Screen Shot 1]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

You may duplicate the Screen Shot template slide as needed.

The screen shots should <u>not</u> contain any bordering transparent or whitespace. Use paint.net to <u>crop</u> them appropriately. **← Read this carefully.**

If a slide contains more than one screen shot or additional artwork (like arrows), group all of the items into a single grouping so that it can be copied-and-pasted and resized as a single unit. **← Read this carefully.**

Delete this textbox.

[Title of Screen Shot 2]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

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Delete this textbox.

[Title of Screen Shot 3]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

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[Title of Screen Shot 4]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

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What's left to do?

- Task 1

- Task 2

- Task 3

- Task 4

- Etc...

Simply give a list of the major tasks that you need to accomplish to complete your project.

Only include things that are relevant to your software system.

Do NOT include things such as "Update the Project Plan" or "Create Project Video."

Delete this textbox.

Questions?