CMPT 275: Software Engineering I
Project Plan

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Simon Fraser University, Canada

Project Deliverable 1

- Two parts:
  - Project website
  - Project plan
- Due: Wed May 20, 2009 11:50pm
- Submit to webct.sfu.ca

Project Requirements

- Required Project Components
  - The goal of the project is develop software for a service which has an online components. This software shall run on an iPhone or iPod/Touch.

Project Requirements (con't)

- Key components that the project must include are:
  - Data Input : Mechanism of input, manual or read a dataset from a file, or from a web site (via RSS feeds)
  - Archiving : Examples include: SQL database (e.g., mySQL), flat file, or an online data storage (search the Web)
  - Analysis : Such as data search (discovering specific services/products among those available), sorting, regression analysis, other statistical analysis, etc. (see more about this below)
  - Display : Visualization of the analysis results using graphs and charts

Project Requirements (con't)

- Other important characteristics:
  - The system must be accessible over the Web, using a web browser or a specialized application client.
  - It must also include a security and access control mechanism that takes into account the different types/roles of users (customer, system administrator, etc.).
  - Support for managing users and maintaining user state (e.g. profiles). Security will play a role here as well.
  - Online help capability and error reporting/tracking capability.

- When deciding about the project, the most important thing to keep in mind is that the software product you will develop should require lot of programming. This is a design rather than a programming course. However, in order to learn good design, the process must include actual implementation of the design. Therefore, the project must include programming.

- Note: Designing web pages passive web pages which contain only HTML is not programming. Therefore, your project can include web page design, but that is not enough.
- On the other hand, designing active webpages using AJAX, Flash, etc., is programming and is perfectly acceptable for the class project.

Project website

- Your project website needs at least the following information:
  - Team name.
  - Full name, student number, and email address of each team member. Also include a brief technical biography of each team member, listing their relevant skills and interests.
  - The title of this assignment, and each future assignment, must be clearly displayed, e.g. in a title or as a menu item.
  - A table of contents linking to the 5 assignments. Provide "stub" pages for future assignments.
  - The project manager (PM) for this assignment, and for future assignments. Everyone in your group must be PM at least once.

- In addition to their other project work, the PM's has three extra responsibilities:
  - Organize meetings, and take notes.
  - Ensure that the assignment is ready for submission.
  - Create and give a presentation to the rest of the class. Of course, other team members can help with presentation, but the PM is in charge of putting it together and making sure it runs smoothly. The presentation should be semi-formal: prepare PowerPoint? (or equivalent) slides, but be prepared to answer questions about any part of your project or presentation.
- Indicate under what open source license you will be releasing your source code. Include a link to the license.

- Provide a link to your Subversion repository. Include explicit instructions for how to check out your project.
- Give a detailed schedule of your team meetings: show the day, time, and location of each meeting. Take into account the CMPT 275 assignment and exam dates, other course due dates, known absences of team members (due to work, other classes, holidays, etc.), and so on.
- Draw a diagram that shows all the documents and activities --- for this assignment and all future ones --- and they relate to each other. The purpose of this diagram is for your team to have a birds-eye view of the work you have to do. Do not clutter of up your diagram with unnecessary (for this diagram!) information such as dates or work assignments.

Team Project: Deliverable 1

- Project plan: List of activities
  - Table of Contents
  - Revision History
  - Project overview
  - Project planning
    - Project schedule
    - Risk management
  - Team meeting agenda and minutes
  - Team members and their roles

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Project Plan

- This document is a good way to communicate the main goals of your project to team members and other stakeholders. Write it in non-technical language that any SFU student could understand.
- Your team should schedule at least one brainstorming session to work out the scope and vision of your project. Do not worry about low-level details at this point (those come in later assignments), but always keep in mind that you are expected to implement everything this document proposes. Be sure to have someone make notes of this session! They will be very useful when writing your vision and scope document.

Project overview

- This summarizes the problem the project is aiming to solve, and discusses the basic goals at the highest level. This should not be too long or too short.
- Who are the stakeholders? List the people who have a stake in the success of the project.
- Who are the Users? Describe the intended users of the system. Clearly state any assumptions you are making about their expertise, experience, or background.

Example of Revision History

Revision	**Status**	**Publication/Revision Date**	**By:**
1.0	Created	*<Day>*, May 12 1997	*<Name of team member(s)>*
2.0	Revised *(Specify which section(s) of* *the document was (were)* *revised and why)*	*<Day>*, May 19 1997	*<Name of team member(s)>*
3.0	Final Revision *(Specify which section(s) of* *the document was (were) revised and why)*	*<Day>*, Jan 23 1998	*<Name of team member(s)>*

Role of Phase Manager

- Responsible for the phase
  - Takes care of difficulties or emergencies that arise
  - Oversees the distribution of tasks for the phase
  - Monitors progress on tasks to assure timely delivery
- The phase manager DOES NOT do all the work for the phase
- The phase manager should participate in the completing tasks for the phase he/she manages

Team members and their roles

- For each team member
  - Name, email address, photo
  - Software management role
    - Project Progress, website , External Communications, Internal communications, configuration

Term Project: Deliverable 1

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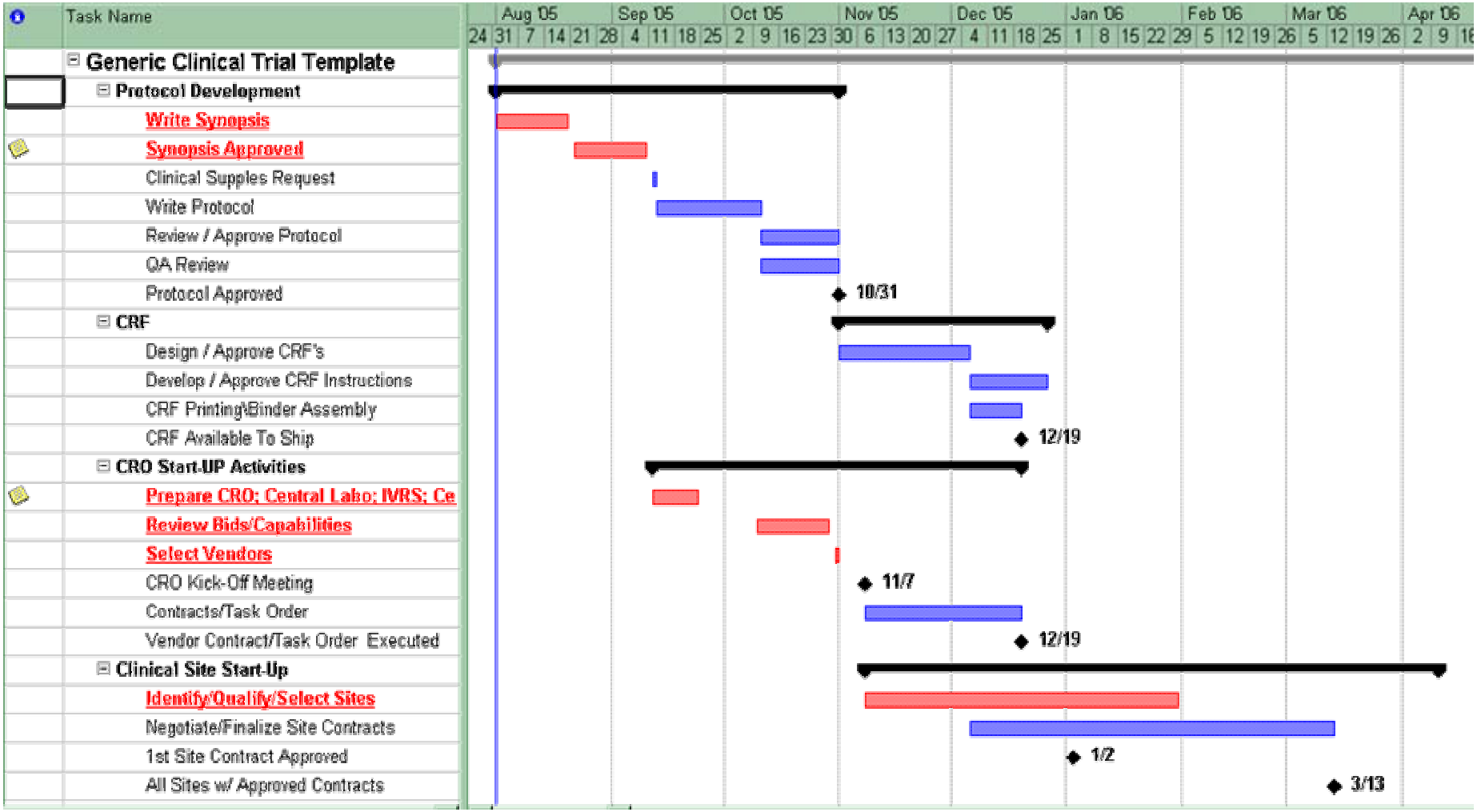
Project Schedule – An Example

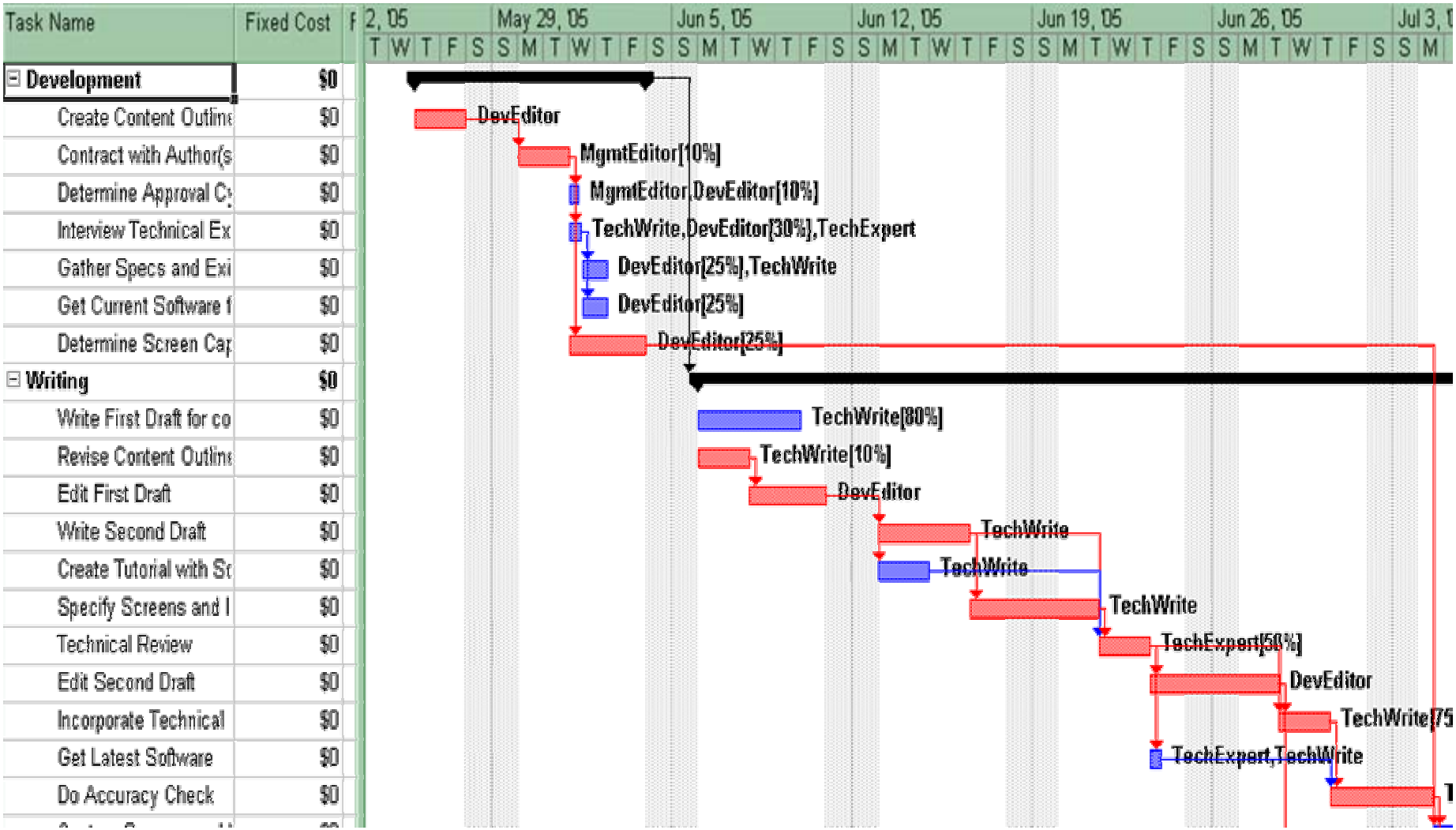


USE MICROSOFT PROJECT TO PRODUCE YOUR GANTT CHART

On your Gantt chart Include

- The Gantt chart in the previous slide illustrates the following items that you should include in your project schedule GANTT chart
  - Milestones:
    - Due dates of deliverables
    - Dates of important meetings (UAT, Client Meeting …)
  - Phases
    - Start and end date of each phase
  - Tasks (sub phases, activities)
    - Start and end date of each task
    - Tasks on critical path highlighted

Project Schedule – Another Example



On your Gantt chart also include

- The Gantt chart in the previous slide illustrates the following additional items that you should include in your project schedule GANTT chart
- Tasks (activities)
  - Names of resources (team members) responsible for each task
  - Percentage of available time of resource on each task (when a resource is assigned to more than 1 task at a time)
  - Dependencies between tasks (does task A need to be finished before task B starts)

Updates to your Gantt chart

- Your original Gantt chart, submitted with deliverable 1 will contain full detail of tasks only for the first phases (project planning and requirements analysis) of the project.
- At the end of each phase of the project the Gantt chart should be updated to reflect the details of the next phase.
- The updated Gantt chart should be submitted with each phase of the project

Term Project: Deliverable 1

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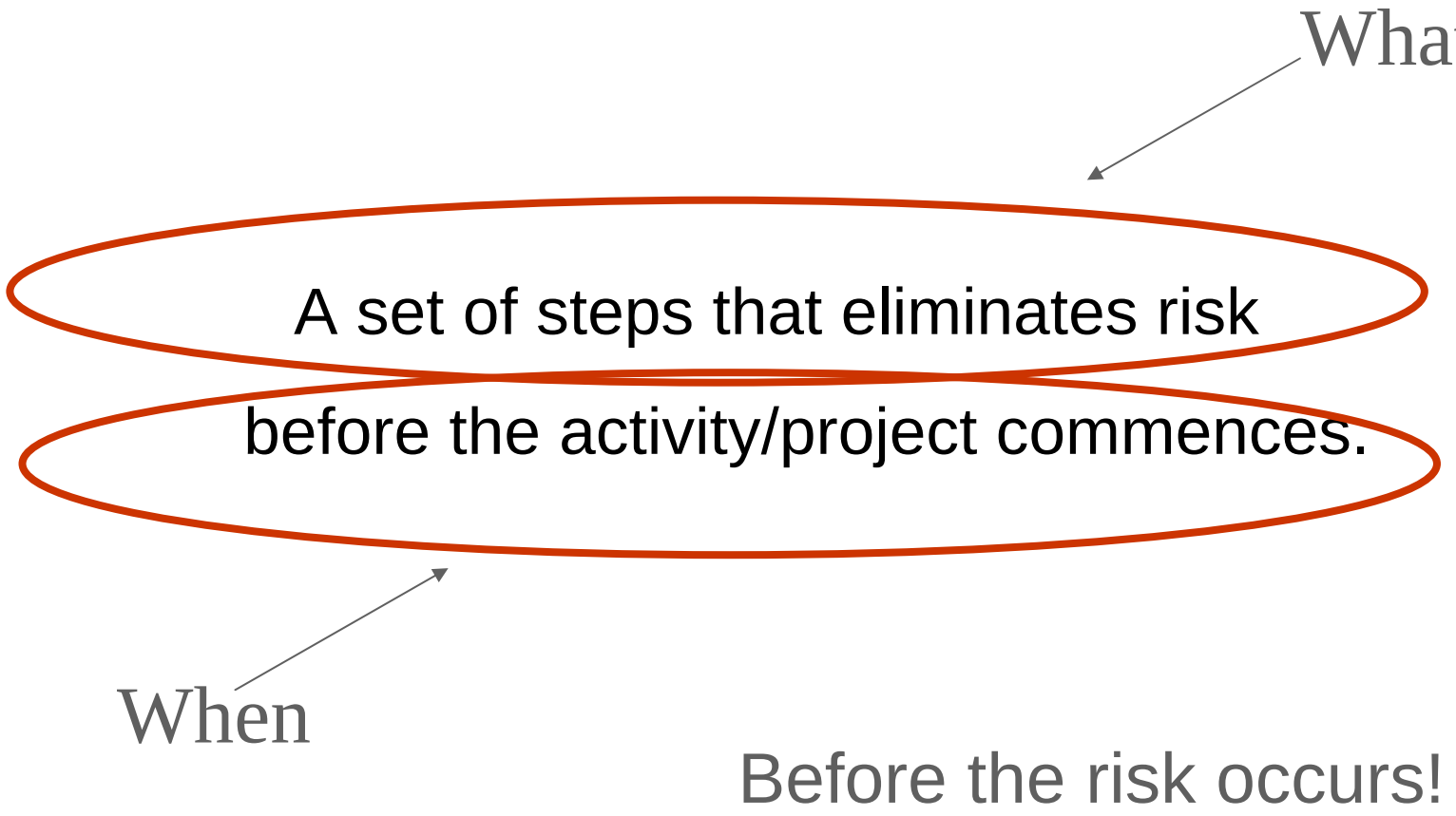
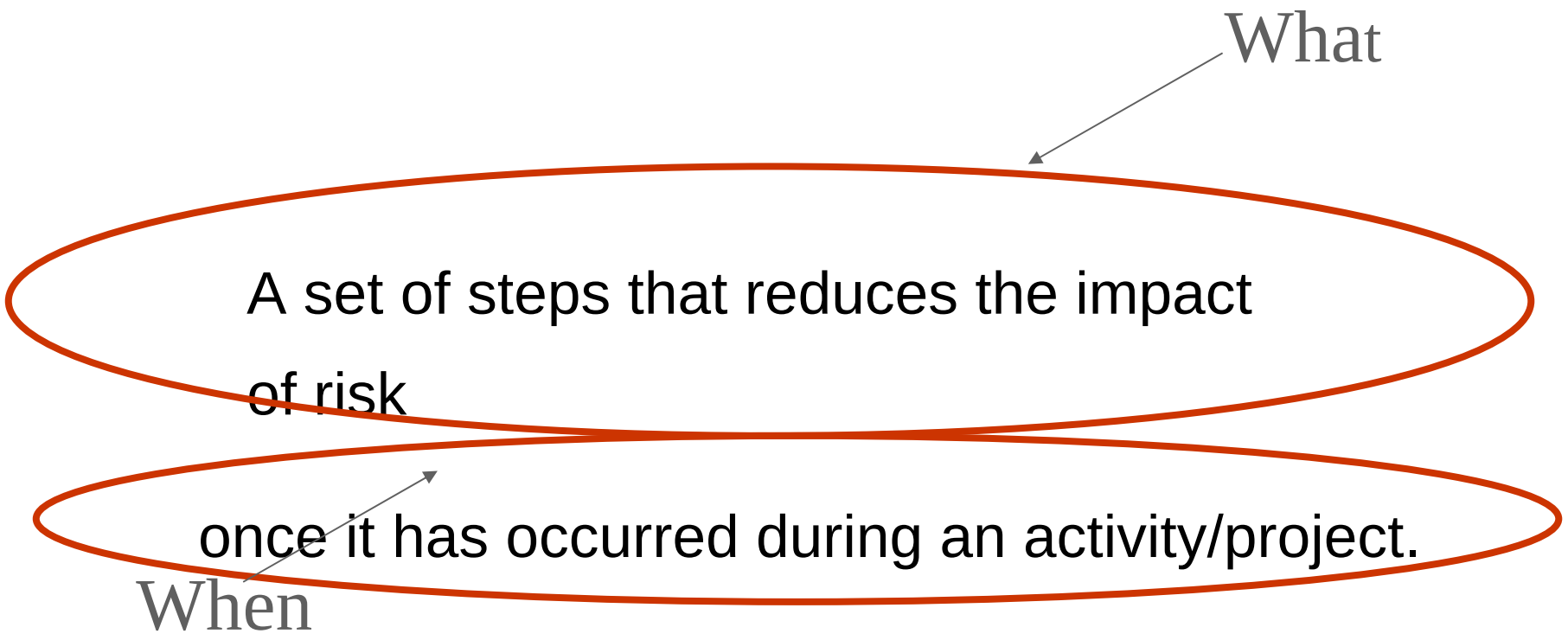
Risk Analysis

- A risk is a potential problem that would hinder the progress of an activity/project if it were to occur.
- To identify risks need to ask: What could happen that would make our project late?
- Mitigate identified risks by making plans that detail how to avoid the risk or recover from the risk

Action Plan


What
A set of steps that eliminates risk
before the activity/project commences.
When
Before the risk occurs!

Contingency Plan



Risk Analysis

- Let's consider an example:
  - We are planning an awards dinner for a the participants of a programming competition.
  - What can go wrong?

- Question?