Learning From Past

Reviewing Projects

Reusing this material

Overview

- What is a Project?

- What are the types of review?

- When do you review?

- What do you review?

- What do you do after the review?

Project

- "an individual or collaborative enterprise that is carefully planned and designed to achieve a particular aim."

- Temporary
- Fixed End
- Has an output of some form

Types of Review

Key Types:

- Peer

- Management

- Audit

Can include:

Code review, test review, pair programming, inspection, walkthrough, technical, personal, team, behavioural

Purpose of A Review

- Identify what has been done
- Identify strengths
- Identify weaknesses
- Identify opportunities
- Identify threats
- Learn Something
- Compliance
- Create Actions

What a Review is not

- Tick box exercise
- Blame game

Formality

- Not all reviews are the same
- Internal reviews often informal
- Milestone/Deliverable reviews – formal
- External Review – formal
- Formality matches Purpose and Audience
- Key Point – either formal or informal – focus counts

Generic Review

- IEEE 1028 – Generic Process for Formal Reviews
    1. Entry evaluation: The Review Leader uses a standard checklist of entry criteria.

    2. Management preparation: Ensure that the review have staff, time, materials and tools. Ensure use of standard policies and standards.

    3. Planning the review: identify review objectives, organises a team of Reviewers, and confirm resources. (RL)

    4. Overview of review procedures: Ensures (at a meeting if necessary) all Reviewers understand the review goals, the review procedures, the materials and procedures. (RL)

Continued

5. Individual Preparation: The Reviewers individually prepare for group examination of the work under review.

6. Group Examination: The Reviewers meet at a planned time to arrive at a consensus regarding the status of reviewed artifact.

7. Rework/follow-up: Author undertakes actions are to repair defects and satisfy the recommendations from the reviewers. The Review Leader verifies that all action items are closed.

8. Exit evaluation: The Review Leader verifies that all activities necessary for successful review have been accomplished, and that all outputs appropriate to the type of review have been finalised.

Plan a Review

- Who?
- What?
- When?
- Standards?
- Potential Outcomes?

Task

- You have been given a code artifact.

- Plan your review of the code

- Technical Review

- Do this in groups

- Report back

When to Review

- Short answer – any time you need to evaluate the project
- More Detail:
  - Major Milestones
  - Product Creation
  - Post Project Review
  - Major Deviations
  - Stakeholder Request
  - Personal Review

What to Review

- Project Products
  - Designs
  - Training materials
  - Code
  - Systems
- Project Teams
  - Interaction
  - Stability
  - Management
  - Resources
- Anything that makes sense

Code Review

- Systematic Examination of Source Code
- Aim to catch mistakes that have been overlooked and improve developer skills

- Main goals
  - Spot and fix early
  - Shared Understanding
  - Consistency
  - Confidence
  - Perspective
  - Team Cohesion

Tips for Reviewing

- Understand and accept that you will make mistakes
- Don't rewrite code without consultation
- Fight for what you believe, but gracefully accept defeat
- Don't be "the guy in the room."
- Ask questions rather than make statements
- Remember that there is often more than one way to approach a solution
- The Code is not the Person and vice versa

Checklists

- Have a checklist for your code before reviews

- Why?

- What would you have on it?

- Do reviewers have different checklists from developers

- Discuss and report back about:
  - Usefulness of checklists
  - Different checklists
  - What should be on them

A Big Review

- Post Project Review
  - Often Formal
  - Identify what has been done
  - Identify deviations and why
  - Identify most important elements
  - Summarise strengths and weaknesses
  - Summarise important lessons to take forward:
    - Individual
    - Team
    - Organisation
  - How will it be checked?
  - Views from Stakeholders and interested parties

Learn Something

- A key point to a review
- ALWAYS have a point to take away
- USE that in the future
- Otherwise it is a useless exercise

What Can We Learn

- New Skills – did the project create new skills or identify lacking skills in the organisation
- New Approaches – did the project come up with something new or modify something else
- Problems – was there a recurring issue that could be avoided or better handled
- Risks updating
- Team Structure
- What else?

Task

- You are going to review this course
- Plan how you will review the course
  - Roles - who
  - Standards
  - What is under review
  - Timescale
- Do the review