

COMP47480 Seminar 1: IBM

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1 More than Software

- Having the right offering
- Getting to the market
- Selling it
- Operating it
- Supporting it
- Evolving it

2 More than Engineering

Many other crucial professions/disciplines are involved in managing the Software

- Management
- Project Management
- Business
- designers
- Test Operations
- Supporting
- Sales and Marketing
- Pricing
- Legal

3 Lifecycle of Project

IBM uses Agile methodology in their lifecycle.

- Vision
- Plan
- Develop
- Deliver
- Operate

3.1 Vision

IBM uses a Design thinking pattern which is process for innnovating and delivering fast. It adds certain practices namely hills, playbacks, sponsor users.

- Hills: it is expressed as an aspirational end state for users that is motivated by market understanding. It defines a mission and scope of a release. No more than 3 major release are recommended with a technical foundation.
- Playbacks: Moving forward requires a lot of feedbacks and that's where playbacks come into play. All design and deelopment work is iterative.
- Sponsor users: these are the people who are selected from real or intended user group. By working with sponsor users. It allows for better design experiences for real target users, rather than imagines needs.

3.2 Plan

Planing involves number of steps like mapping down story boards.

Their planning is similar to Agile planning where we have Epics -> Features -> Plan items -> Stories.

Stories are the leaf items that the Project team work on. Test, documentation and deployment is a part of every story and must be followed by the team members.

Planning is known as Playback 0. They use IBM Rational Team Concert (Jazz) tool to manage all aspects of their work, such as iteration, release planning, change management, defect tracking, source control, and build automation.

3.3 Develop

Development in IBM uses Eclipse as IDE, Ration Software architect (UML), RTC for source control, Tomcat as webserver, DB2 for database, JUnit for testing, Selenium for web browser testing, CheckStyle for static code analysis, Sonar Qube for continuous inspection of code quality like code smells and security vulnerabilities.

They use Jenkins/Build forge for continuous testing. Scripting is done using gradle and artifacts for managing software artifacts and metadata.

All the software is deployed for testing on WebSphere and DB2. Testing is an important part of development and a story or a feature is given clearance for deployment once when following checks are done.

Functional Verification System Verification Business Verification Peer code reviews

This process is Playback N

3.4 Deliver

The projects follows continuous delivery and deployment. Releases are done every 2 X 2 weeks.

3.5 Operate

This involves multiple disciplines such as Deploy, Monitor, Support. Support organisation has multiple heirarchy e.g. (L1/L2/L3)

4 Manage Evolution

Release are done monthly Separate stream for parallel development Merging Streams Check points Legal clearance