

CASE STUDY ON AGILE TESTING

ABOUT BUGRAPTORS

BugRaptors a CMMi level5 company is preeminent independent software testing organization, led by committed, young, and dynamic professionals with extensive expertise and experience of independent testing and QA consulting services. We maintain a distinguished level of testing services which blends top quality with cost effective solutions. The proficiency we have gained in software testing and QA services over the years by implementing latest tools and technologies ensures that client's product is launched with highest degree of quality.

THE CLIENT

The client is a global leader in providing software services in various domains like ERP, SAAS, Social media, Inventory, Marketing & Sales etc.

ABOUT PROJECT

The software was mobile (iOS and Android) and browser applications that allowed users to create, publish, review, and view content in the form of Images, Videos and Audio files.

User can view the different feeds posting by their friends in the application:-

- Friend's/ Celebrity's Name (e.g. Taylor swift) clickable link, when user will click on this link, user will be redirected to the Friend's/ Celebrity's profile screen.
- Post time (e.g. 33 min)
- No. of view (e.g. 4,684) non-clickable ; it shows the count of number of times users have visited that image
- No. of comments (e.g. 105) it is a link, when user will click on this link comments window will open where user can comments on that image/video.
- No. of image/files user has upload (e.g. 17), it a clickable link; if there are multiple images/photos and user will click on this link, user will be navigated to the screen where other photos/ images will be displayed.
- All these feeds are scrollable and latest will be displayed on top.

CHALLENGES

- **Lack of detailed requirement** (Story) -- No traditional style of business or detailed specification documents existed as much of the information was in the conversations from the meeting notes. Although client was very demanding but he was not at all clear about his requirements.
- **Requirements were constantly changing** & the end date to deliver the project was fixed so we didn't have enough time to prepare test cases.
- Testing started after developers have developed and integrated the system so **Late-breaking defects was disrupting project**, as longer a defect sits in code unfixed, the longer it will take a developer to fix it, with dire consequences for project deadlines.
- **Releases were shared with client at the end of milestone to get his feedback.** Changes suggested after the completion of milestone was **increasing rework drastically.**

WHAT'S AGILE AND NEED?

Agile is a response to change

Characterized by quickness & ease of movement



Agile software development refers to a group of software development methodologies which based on iterative development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams.

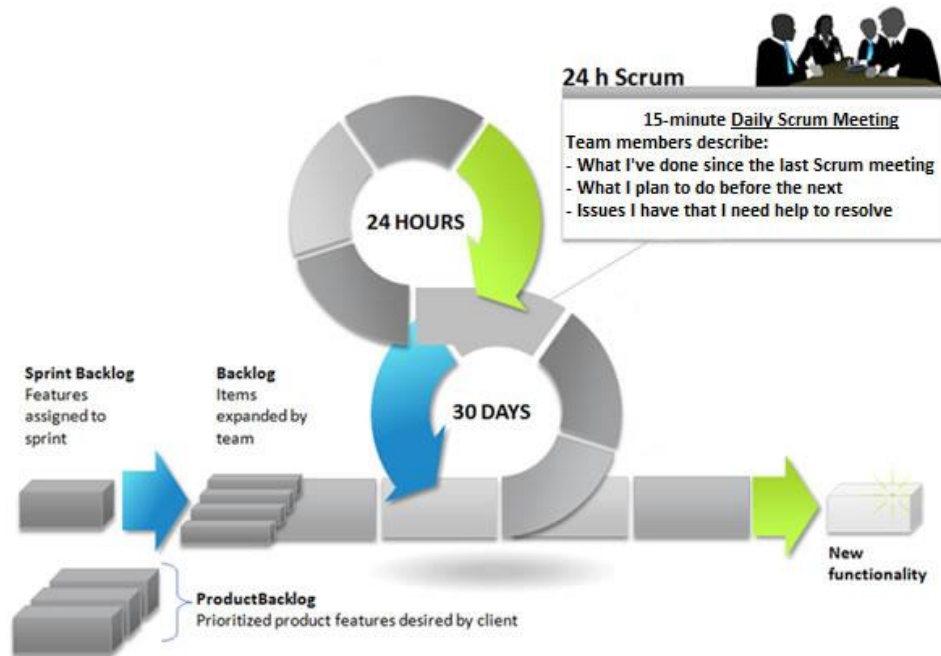
Agile testing involves testing from the customer perspective as early as possible, testing early and often as code becomes available and stable enough from module level testing.

- Improve visibility throughout the project life cycle
- Improved quality + productivity
- Cost effectiveness
- New business opportunities need exploration of new concepts
- Cycle time to react to customer requirements is less.

HOW BUGRAPTORS HELPED

Requirements were changing on daily basis & this could have affected the whole project so we opted for **Agile Testing**.

SCRUM PROCESS



- BugRaptors created an **agile team** comprised of client, developers, testers, database experts, UI developer. Product owner and a scrum master were identified among the team. All these members worked together in close collaboration.
- **SCRUM meetings** were held every day with agile team members to discuss : Team member assigned task for the day, any foreseen challenge in achieving it, progress on previous day task, any impediments (roadblocks).
- Agile team identified **Product Backlogs** i.e. the list of all things that needs to be done within the project.



- **Sprint Planning meeting** were held in which the product owner used **to select a user story** (requirements or feature which has to be implemented) based on the priority from the product back log and the team brain stormed on it. Based on the discussion, the scrum team decided the complexity of the story and impact analysis of the features on the application. **Impact analysis** played a crucial role in avoiding rework to a large extends.
- We approached **client to be an active part of finalizing requirements and the flow of the application**, leaving no space for assumptions. Hence ensuring **100% client satisfaction**.
- **Agile team identified the tasks** along with the **efforts** which would be done to complete the **implementation of the user story**.
- Then the **Sprint Plan was shared** with the **client** to get his feedback & to **prioritize features (if any) in the Sprint Plan**.
- BugRaptors ensured **timely and full test coverage**. **We shared the test cases with development team beforehand** so that **chances of missing scenarios were minimized**. Hence ensuring timely deliveries.
- BugRaptors QA Lead was responsible for coordination with the local and offshore agile team.

- Our QA team worked with development team to **troubleshoot problems found during sprint testing**.
- Three teams within testing team were used:
 - White box test team**
 - Acceptance test team**
 - System testing team**

CLIENT BENEFITS

- Customers benefited from Agile as it ensured **high customer satisfaction** courtesy frequent releases.
- Brought **all stakeholders on the 'same page'** in terms of project progress and expectations.
- Client got **early access to product** during the life cycle.
- **Greater flexibility** for accommodating Change Requests.
- With BugRaptors help, the client was able to get **high-quality product within Product release deadlines**.

RESULTS

Some things we've learned from this experience:

- We learned that Product Owner role is a very important part of an efficient Agile team. Having a well-groomed Product Backlog and an up-to-date Product Roadmap provided a much higher degree of vision and flexibility to everyone involved in the project - the team, management, and the clients.
- BugRaptors realized that collaboration is critical. At all levels of the organization and external client base, constant communication and feedback are truly valuable.
- Agile encouraged maintenance of traceability between the requirements, test cases and bugs, hence better coverage.