Software Systems Verification and Validation

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Software Systems Verification and Validation

"Tell me and I forget, teach me and I may remember, involve me and I learn."

(Benjamin Franklin)

(Next)/Today Lecture

- Agile testing
- Exploratory testing

Outline

- Agile Testing
  - Video presentations – 10 minutes

- Exploratory testing
  - Definition
  - About
  - Video presentations and links
  - Session Based Test Management [SBTM]
    - About
    - Ready for rent?
      - 5 min. - about
      - 25 min. activity
      - 10 min. - questionnaire
   - 10 min. debriefing

Outline

- Agile Testing
  - **Video presentations – 10 minutes**

- **Video presentations (from 2019)**
  - **Created by a team**
  - **Each video ~ 5 minutes**
    - **Audio + written + visual**
  - **Send by email the link for your video – 1 day before the presentation**

- Team 1
- **Team 2 - 3:44 – Agile testing - quadrants**
- **Team 3 - 5:27 – Agile testing - methods**
- Team 4

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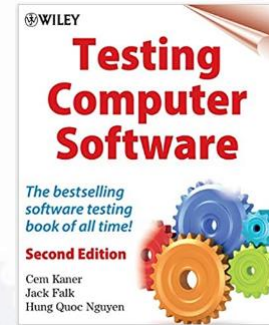   - 10 min. debriefing

Exploratory testing – Definition(s)

- History of definitions of Exploratory testing
  - https://www.satisfice.com/blog/archives/1504

- James Bach, Test consultant and founder of Satisfice Inc., helps understand Exploratory testing in an exclusive interview.
  - https://www.youtube.com/watch?v=I-ItEKt_N_s&ab_channel=MindtreeLtd.
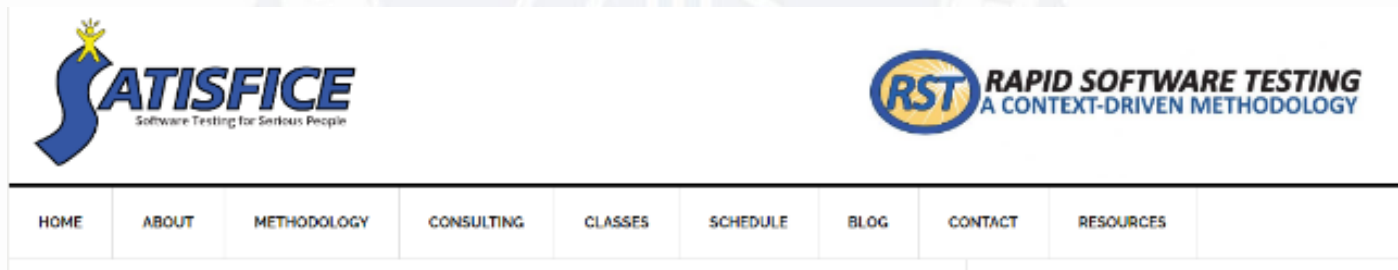
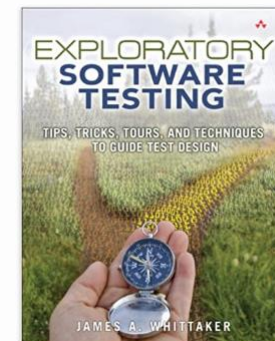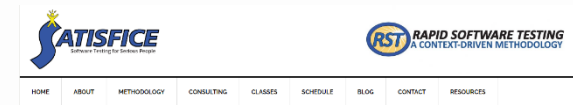# Exploratory testing – About

- James Bach, Test consultant and founder of Satisfice Inc., helps understand Exploratory testing in an exclusive interview. (6 min. video)
  - https://www.youtube.com/watch?v=I-ItEKt_N_s&ab_channel=MindtreeLtd.

- Elisabeth Hendrickson
  - An explanation of the Who, What, When, Why, and How of exploratory testing. (total 40 min.) Seconds 25"-2min10"
  - https://www.youtube.com/watch?v=9FKY1Is0lgs&ab_channel=ElisabethHendrickson
- James Whittaker
  - Large-scale Exploratory Testing: Let's Take a Tour (total 47 min.)
  - https://www.youtube.com/watch?v=fNkYz1hB7r0&ab_channel=TechWellHappenings
- Maaret Pyhajarvi
  - https://www.youtube.com/watch?v=yXupa6Gtt3E&ab_channel=BrowserStack
  - Min. 34min (34'') to 37 min
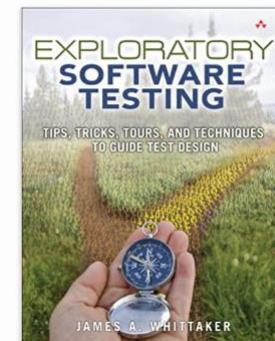
Exploratory testing – Video presentations and links

- History of definitions of Exploratory testing
  - https://www.satisfice.com/blog/archives/1504
- James Bach, Test consultant and founder of Satisfice Inc., helps understand Exploratory testing in an exclusive interview. (6 min. video)
  - https://www.youtube.com/watch?v=I-ItEKt_N_s&ab_channel=MindtreeLtd.
- Elisabeth Hendrickson
  - An explanation of the Who, What, When, Why, and How of exploratory testing. (40 min.)
  - https://www.youtube.com/watch?v=9FKY1Is0lgs&ab_channel=ElisabethHendrickson
- James Whittaker
  - Large-scale Exploratory Testing: Let's Take a Tour (47 min.)
  - https://www.youtube.com/watch?v=fNkYz1hB7r0&ab_channel=TechWellHappenings
- Maaret Pyhajarvi
  - https://www.youtube.com/watch?v=yXupa6Gtt3E&ab_channel=BrowserStack
  - (44 min.)

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Session Based Test Management [SBTM]

- A method [SBTM] for measuring and managing **exploratory testing**.

- http://www.satisfice.com/sbtm/

- http://www.satisfice.com/articles/sbtm.pdf

- An approach to testing with:
    - No test cases
    - No expected results
    - No pass/fails metrics

- Testing on a project is divided up into focused "sessions" of exploratory testing.

- A test session
    - A dedicated and uninterrupted period of exploratory testing.
    - Focused on a set objectives defined in a "charter"
    - Generates notes and lightweight reporting on the testing carried out.
    - The testing task is expected to change and evolve.

- **Exploratory testing**
    - **Is not random**
    - **Is creative and requires intelligent thoughts.**

Session Based Test Management [SBTM]

- **Planning**
  - Charter: a single sentence that sets the scope of the testing
    - What you will test
    - How you plan to test it
    - The information you hope to provide.
  - That scope should be achieved in 90 minutes.
  - Charter are basis of estimation and coverage.

- **Testing**
  - A dedicated and uninterrupted period of testing (no meetings, no email)
  - Use testing experience or instinct; use your domain knowledge
  - Test scenarios could be ok, but not pre-scripted steps
  - Use the software, observe it and be alert of new questions or test ideas
  - Encourage thinking beyond specific features or tasks in isolation.
  - Fully imagine and describe users of the software

- **Note taking/ Reporting**
  - Not just pass/fail count: What you did. Why you did it. What you saw. What questions and ideas you had. Any frustrations/blocks.

Session Based Test Management [SBTM]

- Jonathan Bach – course on Session Bases Test Management

- Example:
    - Applied: Sanity and Survey Testing Focus Writer.
    - Software: Focus Writer.

- **Computed metrics**

	Test
	Bug
	Setup
	OffCharter
	Note
	Question
	NextTime
	Data

Session end.Duration		52
Number of bugs		4
Time on Test (mins)		44
Time on Setup (mins)		3
Time on Bugs (mins)		3
Time Off Charter (mins)		1
Number of questions		5
Number of ideas for next time		2
Session Tester	alexandra.casapu@altom.ro	
Session Charter	Perform Sanity Testing and Survey Testing for FocusWriter	
Planned session time (mins)		60
Environment Info	Windows, Product Version: FocusWriter 1.6.2, Mac OSX version 1.6.2, on MacOSX Sierra	
Area	Menus	
Current Active Tag	Test	
Time remaining (mins):		9
Session start	SESSION ENDED!	

Session Based Test Management [SBTM]

- Jonathan Bach – course on Session Based Test Management [RapidSoftwareTestingCourse_Altom]

- Example:
  - Applied: Sanity and Survey Testing Focus Writer.
  - Software: Focus Writer.

Overall Summary	
Total Sessions	1
Total Time (hours)	0.87
Total Bugs	4
Time on Test (hours)	0.73
Time on Setup (hours)	0.05
Time on Bugs (hours)	0.06
Time Off Charter (hours)	0.01
Total Questions	5
Total Next Time Ideas	2

Test/Bugs/Setup/OffCharter

- Time on Test (hours)
- Time on Setup (hours)
- Time on Bugs (hours)
- Time Off Charter (hours)

0.73
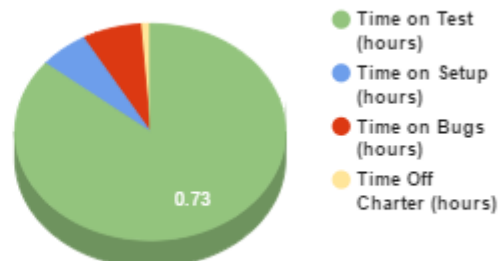
Testing Summary by Area

- Sessions
- Total Time (hours)
- Number of bugs

MENU 8
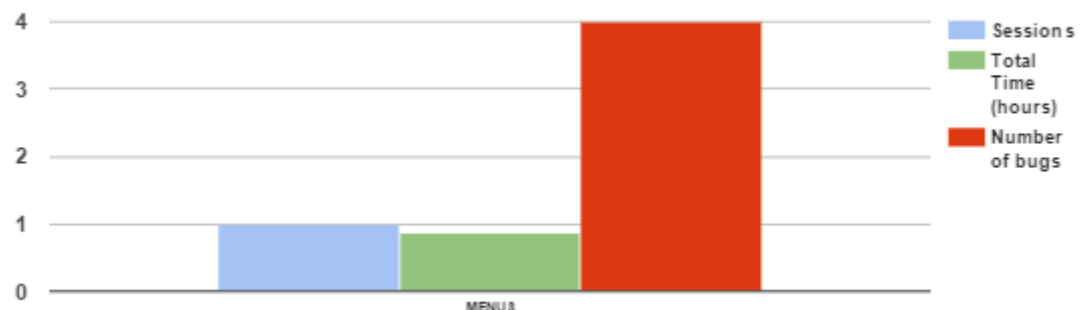
Session Based Test Management [SBTM]

- Tabara de testare 2016

- Example:
  - Software: OpenOfficeImpress.

- **Computed metrics**

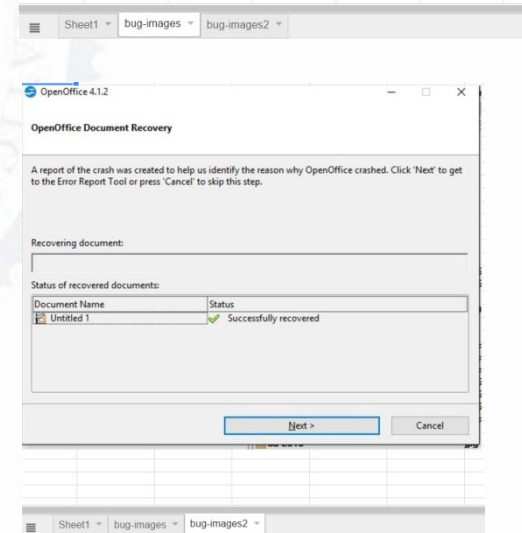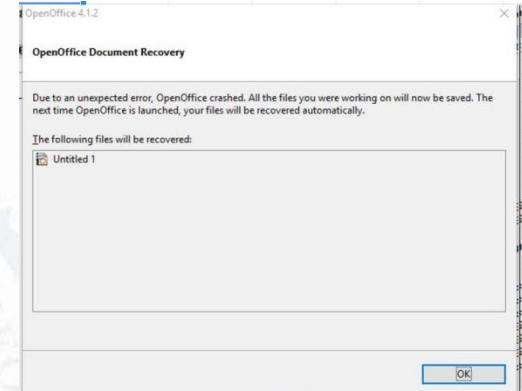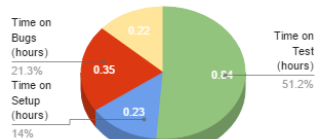| Session Tester	andreea.vescan@gmail.com	
Session Charter	AndreeaVescan	
Planned session time (mins)	30 minutes	
Environment Info	OpenOfficeImpress	
Area	Sa aflam daca sunt buguri in Impress care ar putea determina utilizatorii sa foloseasca solutii similare	
Current Active Tag	Bug	
Time remaining (mins):	#NUM!	
Session start	START ADDING NOTES BELOW	
Test	create new template with a special fornt for letters (to tell an emotional story by a professional trainer/presenter) to raise the impact of the content	
Note	Am creat un myOwnTemplate si am incercat sa vad daca pentru mine am gasit un tip de font apropiat de scrisul de mana si am gasit...satisfacator	
Bug	nu s-a salvat formatul creat de mine	vezi imaginile de la bugs
Note	am incercat sa caut pe internet fonturi care sa existe in ppt si nu in openoffice care sa fie in format de scrisoare,m-am uitat si in lista de font de la ppt dar la prima vedere nu verificat cateva care mi-au placut daca se gasesc si in openoffice	
Test	am verificat pe internet daca au mai fost alti utilizatori nemultumiti de fonturile existente in openoffice	
Note	ce tipuri de utilizatori sunt? cat de prioritar pentru ei era sa fie fontul cerut? Cat de critic?	
Note	how to install new fonts in openoffice, v	
Note		
Test	cauta pe forumuri despre bud publicity for openoffice	
Note	https://forum.openoffice.org/en/forum/viewtopic.php?f=10&t=33191	
Note	Difficulty aligning bullets in slide master	

Session Based Test Management [SBTM]
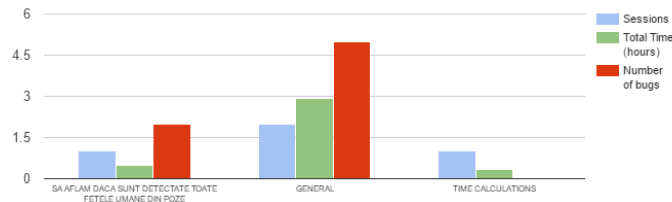
- Use SBTM for an open source application
  - **Suggestion**: Use SBTM for your Bachelor Thesis.

- SBTM template available here:
  - https://altom.com/version-2-1-of-the-sbtm-session-template-was-released/
  - **Use your gmail account.**

  - Instructions how to use the template
    - https://altom.com/sbtm-with-itester-and-google-drive/
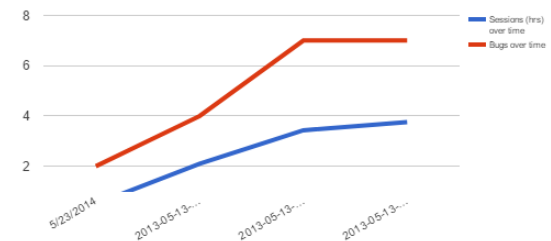
Session Based Test Management [SBTM]

- Demo: Session Testing
- Mission: Ready For Rent?
  - 5 min. - about
  - **25 min. activity**
  - **10 min. results + voting**
  - 10 min. – questionnaire

  - 10 min. debriefing
- Debriefing: PROOF
  - **Past + Results + Outlook + Obstacles + Feeling**

Go to www.menti.com and use the code 3363 2798

Mentimeter

- Bonus points = votes
  - I: 50 XP
  - II: 25 XP
  - III:15 XP

Session Based Test Management

Ready For Rent?

Mission = find "bugs" in the way the house was constructed that make the users (for rent, for buy) to search another house.

Users = Family with 3 kids (2 toddlers + 1 teenager)

Time = 20 minutes

Session Testing

Test	
Bug	
Setup	
Offchart	
Note	
Next time	
Question	

Debriefing = P	R	O	O	F
Past	Result	Outlook	Obstacles	Feeling

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Mentimeter

Go to www.menti.com and use the code 7443 2777

References

- Lisa Crispin, Janet Gregory, **Agile Testing: A Practical Guide for Testers and Agile Teams (Addison-Wesley Signature),** Addison-Wesley Professional; 1 edition (January 9, 2009)

- Janet Gregory, Lisa Crispin, **More Agile Testing: Learning Journeys for the Whole Team (Addison-Wesley Signature Series (Cohn)) ,** Addison-Wesley Professional; 1 edition (October 16, 2014)

- [SBTM] Jonathan Bach, **Session Based Test Management,** http://www.satisfice.com/sbtm/

  http://www.satisfice.com/articles/sbtm.pdf

Next Lecture

- **Altom** invited lecture

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