

# **A Seminar Report on “Software Testing”**

**1. Date of the Seminar/Workshop:** 01/10/2022

**2. Title of the Seminar/Workshop:** “Software Testing”

**3. Name of the Speaker / Resource person with Affiliation with the institute / industry:**

Dr. Seema Shah

**Institute:** - NMIMS, Mumbai

**Designation:** - Associate Professor, HOD, Computer engineering,  
Director - BTech Integrated Program

**4. Venue of the Seminar/Workshop:** Online( Google Meet)

**5. Duration of the Seminar:** 2 hours (10:15 am to 12:15 pm)

**6. Conducted For:** Students of Third Year Computer Engineering

**7. Objective of the Seminar/Workshop /Curriculum Gap identified/Other than that:**

The objective of the seminar was basically to ensure that the students should have a clear understanding of software testing in industry. The Agenda of arranging this seminar was to give the students technical/practical insight of the software engineering process and software testing in Industry.

**8. Contents of the Seminar/Workshop:**

The 2-hour period was very interactive and helped in arousing the interest of the student as to why Testing is important. The Speaker started with:

- What is software testing
- Importance of testing
- Evolution of testing
- Types of Testing
- Root causes of Software defects
- Sample template for unit testing with explanation
- Test Schedule
- User Acceptance Testing (UAT)
- Regression testing
- Industry template
- Various templates of industry level testing
- Test execution report

## **9. Description of the Entire Event**

The Computer Department at St. Francis Institute of Technology hosted a seminar on “Software Testing” on Saturday, October 01, 2022 from 10.15 pm to 12.15 pm, online via Google meet.

There were approximately 100 student participants and various faculty participants who attended the seminar. The opening remark was given by Ms. Rhea Pinto where introduced the Speaker, Dr. Seema Shah.

Further, the speaker took over the session and started off by diving right into the topic ‘Software Testing’. She started by emphasizing the importance of Software testing. She mentioned the ill effects of not testing the software being made. She explained the evolution of testing. She mentioned the Seven Principles of Testing. She then went on to explain the different types of Testing used in the industry like white box, black box, etc.

Then, the speaker conducted a quiz on Mentimeter in between the session. She explained the root causes of software defects. She presented various sample templates used in the industry for software testing.

She then explained about test suites. She explained about Test Schedules being used for Software Testing. She described types of testing called User Acceptance Testing (UAT), Regression Testing. She then explained what a Test Execution Report is and how it is useful for testing. She also discussed how to have a career in Software testing.

Lastly, she concluded by asking a few questions to the students through Padlet. The doubts and questions put by the students were also answered at regular intervals.

Ms Varsha Nagpurkar gave our speaker a vote of thanks and useful input on this information-packed webinar. Overall, the session provided a great knowledge regarding software development and testing techniques used in software industries.

# Photographs of the Seminar

**Cost of Testing!**

**Defect fix cost**

Cost increases

Phase	Relative Cost
Requirement Analysis	2
Design	4
Coding	8
Testing	16
Maintenance	32

Legend: Requirement Analysis, Design, Coding, Testing, Maintenance

11:02 AM | tecmpna

**Seven Principles of Software Testing**

- Testing shows presence of Defects**  
Testing shows presence of defects, cannot prove absence of defects. Testing helps in finding undiscovered defects.
- Exhaustive testing is impossible**  
Impossible to test all possible input combinations of data and scenarios. Smarter ways of testing should be adopted.
- Early Testing**  
Start testing as soon as possible. Finding defects early on saves a lot of money rather than finding them later.
- Defect Clustering**  
Equal distribution of bugs across the modules is not possible. Defect may be clustered in small piece of code/module.
- Testing - Context Dependent**  
Testing is context dependent. Different websites are tested differently. Eg. Banking site tested differently than Shopping site.
- Pesticide Paradox**  
Executing same test cases again and again will not help to identify more bugs. Review them regularly and modify if changes required.
- Absence-of-errors fallacy**  
Finding and fixing many bugs doesn't help. It fails to meet user's requirements. It is a useful.

www.lazdoesting.com

11:05 AM | tecmpnb

Speaker Introducti... SE Progress Report... Meet - dho-ys... Meet - bxc-ps... best google meet... Google Meet Att... chrome-extension... +

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Seema Shah is presenting

```

graph TD
    Root[Types of Testing] --> Manual[Manual Testing]
    Root --> Automation[Automation Testing]
    Manual --> White[White Box Testing]
    Manual --> Black[Black Box Testing]
    Manual --> Gray[Gray Box Testing]
    White --> Functional[Functional Testing]
    White --> NonFunctional[Non-Functional Testing]
    Functional --> Unit[Unit Testing]
    Functional --> Integration[Integration Testing]
    Functional --> System[System Testing]
    NonFunctional --> Performance[Performance Testing]
    NonFunctional --> Usability[Usability Testing]
    NonFunctional --> Compatibility[Compatibility Testing]
    Black --> Incremental[Incremental Testing]
    Black --> NonIncremental[Non-Incremental Testing]
    Gray --> Load[Load Testing]
    Gray --> Stress[Stress Testing]
    Gray --> Stability[Stability Testing]
  
```

CARL MASCARENHAS\_202074 has left the meeting

11:10 AM | tecmpna

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graph TD
    Root[TEST PLAN] --> SuiteA[TEST SUITE A]
    Root --> SuiteB[TEST SUITE B]
    Root --> SuiteC[TEST SUITE C]
    SuiteA --> TC_A1[TEST CASE A1]
    SuiteA --> TC_A2[TEST CASE A2]
    SuiteA --> TC_A3[TEST CASE A3]
    SuiteB --> TC_B1[TEST CASE B1]
    SuiteB --> TC_B2[TEST CASE B2]
    SuiteB --> TC_B3[TEST CASE B3]
    SuiteC --> TC_C1[TEST CASE C1]
    SuiteC --> TC_C2[TEST CASE C2]
    SuiteC --> TC_C3[TEST CASE C3]
    TC_A1 --> TS_A1[TEST SCRIPT]
    TC_A2 --> TS_A2[TEST SCRIPT]
    TC_A3 --> TS_A3[TEST SCRIPT]
    TC_B1 --> TS_B1[TEST SCRIPT]
    TC_B2 --> TS_B2[TEST SCRIPT]
    TC_B3 --> TS_B3[TEST SCRIPT]
    TC_C1 --> TS_C1[TEST SCRIPT]
    TC_C2 --> TS_C2[TEST SCRIPT]
    TC_C3 --> TS_C3[TEST SCRIPT]
    TS_A1 --> TD_A1[TEST DATA]
    TS_A2 --> TD_A2[TEST DATA]
    TS_A3 --> TD_A3[TEST DATA]
    TS_B1 --> TD_B1[TEST DATA]
    TS_B2 --> TD_B2[TEST DATA]
    TS_B3 --> TD_B3[TEST DATA]
    TS_C1 --> TD_C1[TEST DATA]
    TS_C2 --> TD_C2[TEST DATA]
    TS_C3 --> TD_C3[TEST DATA]
  
```

11:24 AM | tecmpna

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### Test Case Example1 (simple test)

Test Case #: 2.2      Test Case Name: Change PIN      Page: 1 of 1  
 System: ATM      Subsystem: PIN  
 Designed by: ABC      Design Date: 28/11/2004  
 Executed by:      Execution Date:

Short Description: Test the ATM Change PIN service

**Pre-conditions**  
 The user has a valid ATM card - The user has accessed the ATM by placing his ATM card in the machine  
 The current PIN is 1234  
 The system displays the main menu

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Click the 'Change PIN' button	The system displays a message asking the user to enter the new PIN		
2	Enter '5555'	The system displays a message asking the user to confirm (re-enter) the new PIN		
3	Re-enter '5555'	The system displays a message of successful operation		
4	Click 'YES' button	The system asks the user if he wants to perform other operations		
5	Check post-condition 1	The system displays the main menu		

**Post-conditions**  
 1. The new PIN '5555' is saved in the database

Seema Shah

49 others

You

#### In-call messages

Let everyone send messages

Messages can only be seen by people in the call and are deleted when the call ends

Padlet

<https://padlet.com/4seema/mfs6095pm7blygz>

You 10:50 AM  
it is audible

Send a message to everyone

11:31 AM | tecmpna

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ISTQB CERTIFICATIONS      CPSAT      Certified Agile Tester

Manual Tester (0-2 yrs)

Automation Tester (2-5 yrs)

Test Analyst / Test Lead (4-6 yrs)

Test Manager (6-10 yrs)

Director/Head of Unit

Software Testing Certification Course

Seema Shah

Dr. Kavita Sonaw...

RHEA PINTO\_20...

VARSHA NAGPU...

KEVIN GOMES\_2...

AXILL DCUNHA\_...

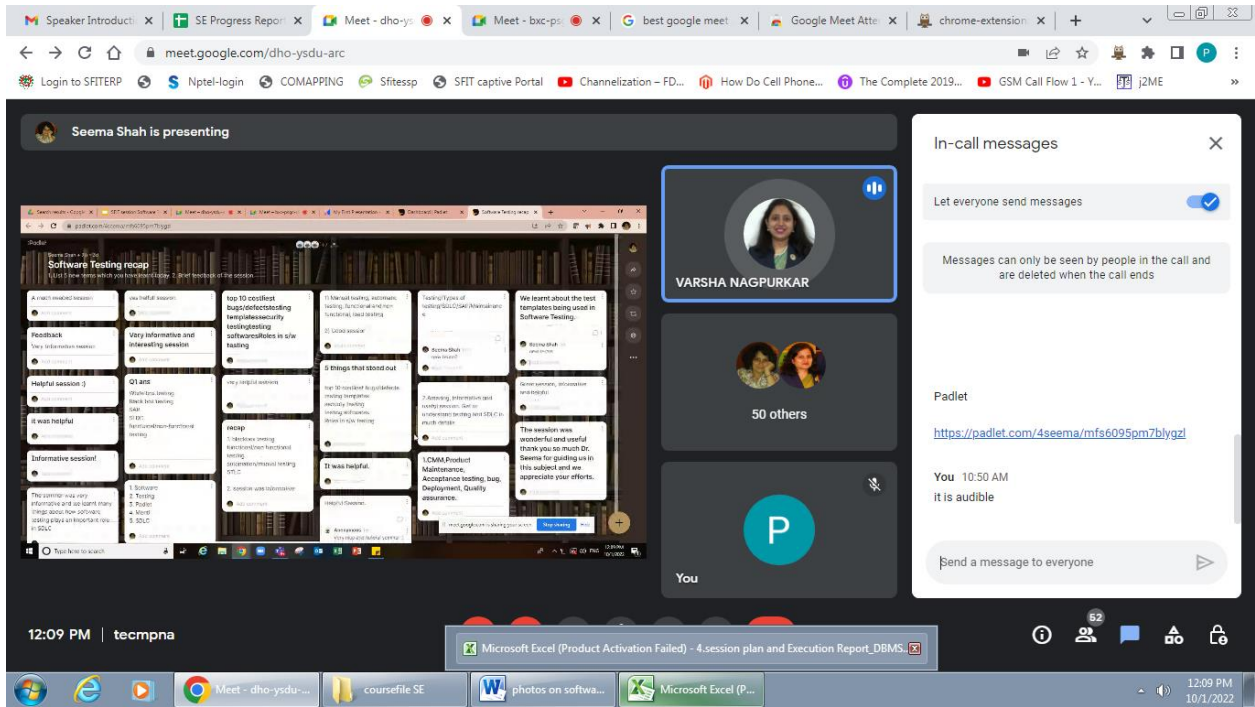
TEJAS BEDRE\_20...

44 others

You

12:00 PM | tecmpna

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**Dr. Kavita Sonawane and Ms. Varsha N**

**Seminar Incharge**

**Dr. Kavita Sonawane**

**HOD,  
Computer Engineering Dept**