Brighter Blue

Core Testing>Day 5>Basic Testing

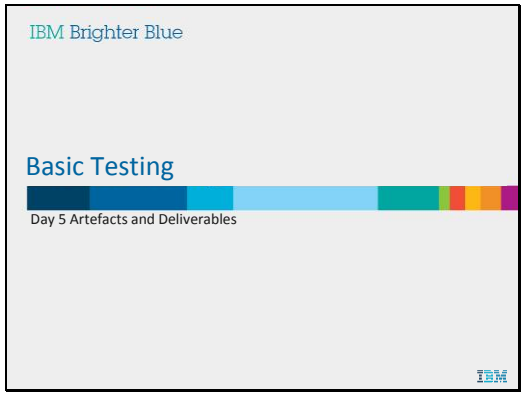
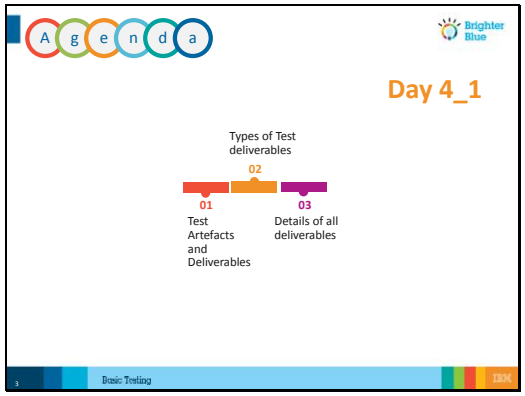
Instructor Guide

IBM

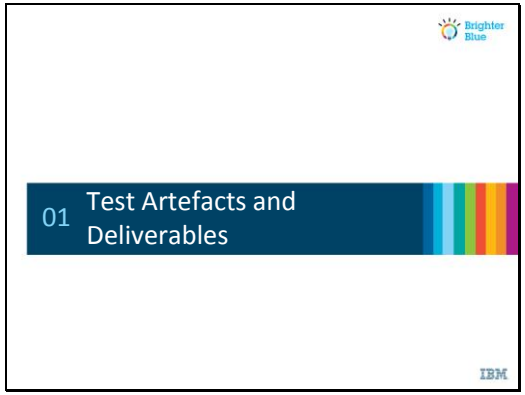
Contents

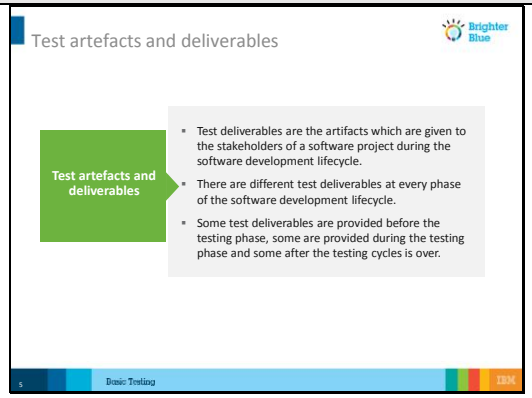
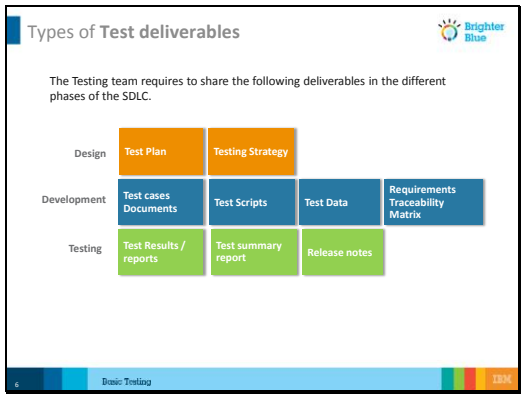
MODULE 01: TEST ARTEFACTS AND DELIVERABLES 3

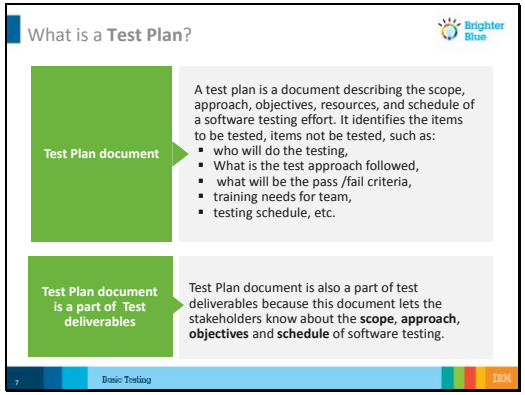
Module 01: Test Artefacts and Deliverables

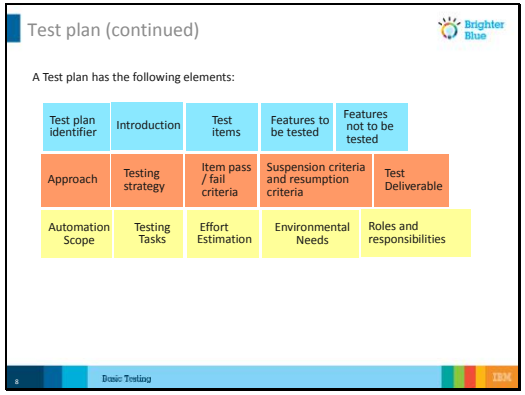
Slide Content	Instructor Guide	Use this space for your own notes
Slide 1  		
Slide 2  This course consists of one module which is divided into three sections, each describing the various	**Purpose:** To go cover the training program agenda **Approximate Duration: 5-15** minutes depending on length of program **What to cover:** • Distribute the Participant guides and Program attendance sheets • Go over the agenda for each of the days. Briefly describe the subject areas that will be covered and the activities that will be performed (exercises, case studies). Address the expectations that the participants listed in their	

Slide Content	Instructor Guide	Use this space for your own notes
aspects of Test Artefacts and Deliverables	introductions. Include information about breaks, lunch and so on. while describing the agenda. • Inform the participants about the evaluation criteria and end of course assessments. • Inform the participants that you expect highly interactive sessions and that you welcome any questions that they might have. • Ask that all participants turn off their phones or put them in silent mode. Inform them that if they are found to be using their phones or any mobile devices during the sessions that it will be confiscated and returned only at the end of the day. • Inform the participants of the location of exits (in case of fires or any other emergencies). • Go over the format of the Participant guide. Encourage them to take notes as the course using the Notes pages provided in the guide.	

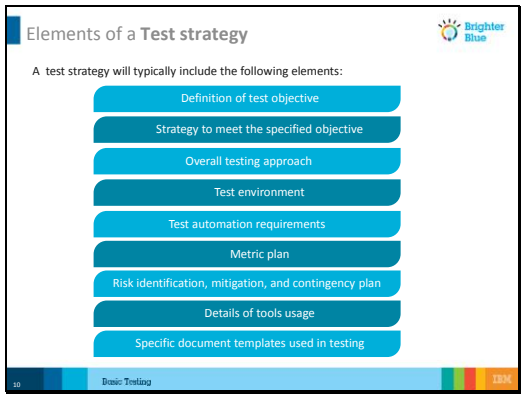
Slide Content	Instructor Guide	Use this space for your own notes
Slide 3  At the end of this module, you should be able to: • Define what are Test Artefacts and Deliverables • List the different types of deliverables • Discuss in detail about all the deliverables	**Purpose:** To go cover the objectives of this module **Approximate Duration:** 2 mins **What to cover:** • Tell the participants that we will discuss in detail about Test Artefacts and Deliverables and different types of Test Deliverables	
Slide 4	**Purpose:** To know about Test Artefacts and Deliverables **Approximate Duration:** 2 mins **What to cover:** • Tell the participants about Test deliverables and artefacts • Point out why they are important in	

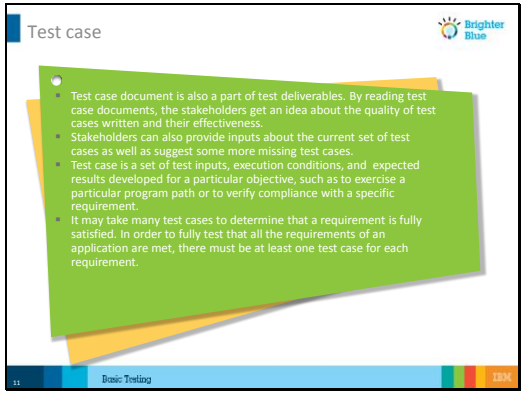
Slide Content	Instructor Guide	Use this space for your own notes
	the software development cycle.	
Slide 5 	**Purpose:** To list the different types of Test Deliverables **Approximate Duration:** 2mins **What to cover:** • Ask the participants if they know the full form of SDLC (Software Development Life Cycle) • Tell the participants about the different types of Test deliverables that are required in the different phases of SDLC • It would be great if you can use the whiteboard and marker to write down the phases of the SDLC and map the	

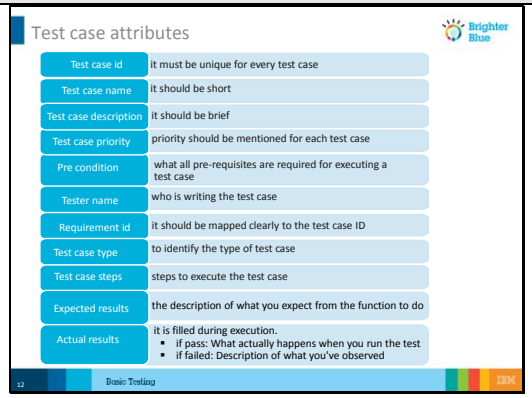
Slide Content	Instructor Guide	Use this space for your own notes
	deliverables to them	
Slide 6  	**Purpose:** To know what is a Test Plan and how it is related with Test deliverables **Approximate Duration:** 3 mins **What to cover:** • Tell the participants about a Test Plan – what is it and how it is related to the Test deliverables • Make sure you cover the points in the notes section of the slide (also in the Slide Content Column of this document).	

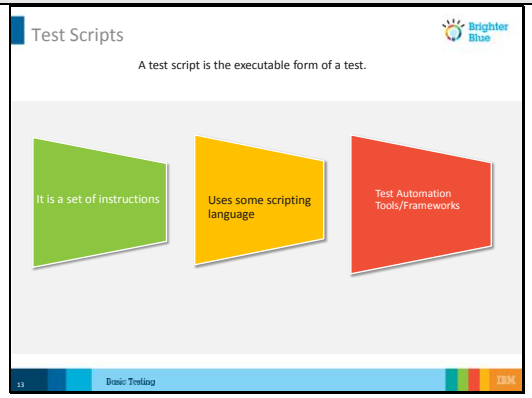
Slide 7
 
 	
	Purpose: To list all the Test Plan elements
	
	Approximate Duration: 5 mins
	
	What to cover:
	
	• Start by asking them what they feel should be the included in a Test plan
	
	• Point out all the following elements of a Test plan to the participants:
	
	  • Test plan identifier
	
	  • Introduction	

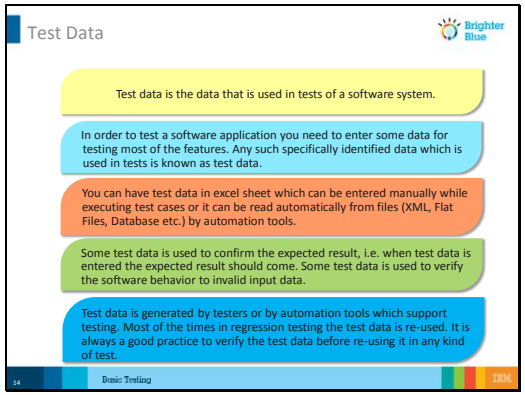
Slide Content	Instructor Guide	Use this space for your own notes
	• Test items • Features to be tested • Features not to be tested • Approach • Testing strategy • Item pass / fail criteria • Suspension criteria and resumption criteria • Test deliverable • Automation scope • Testing tasks • Effort estimation • Environmental needs • Roles and responsibilities	
Slide 8	**Purpose:** To tell the participants about Test Strategy and its importance as a test deliverable **Approximate Duration:** 4 mins **What to cover:** • Tell the participants about Test	

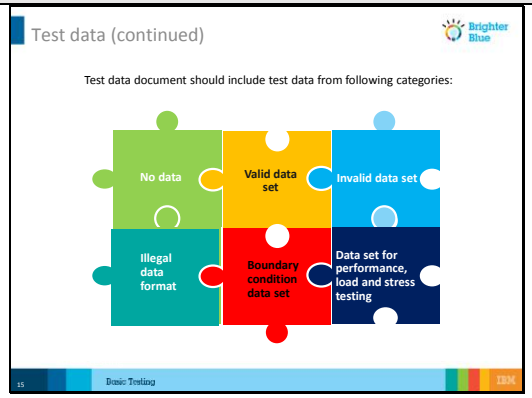
Slide Content	Instructor Guide	Use this space for your own notes
	Strategy. • Explain why a test strategy is required and hence its importance as a test deliverable. • Clearly explain how a Test strategy helps to meet the business and test objectives. It would be great if you can use a real life example to explain this point.	
Slide 9 	**Purpose:** To tell the participants about the elements of Test Strategy **Approximate Duration:** 2 mins **What to cover:** Tell the participants about the following elements of a Test strategy: • Definition of test objective • Strategy to meet the specified objective • Overall testing approach • Test environment • Test automation requirements	

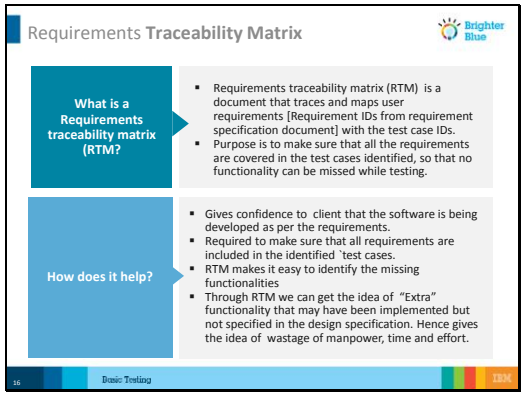
Slide Content	Instructor Guide	Use this space for your own notes
	• Metric plan • Risk identification, mitigation and contingency plan • Details of tools usage • Specific document templates used in testing	
Slide 10  	**Purpose:** To describe a Test case document **Approximate Duration:** 5 mins **What to cover:** • Introduce the participants to the Test case document • Explain how it helps the stakeholders	
Slide 11	**Purpose:** To tell the participants about Test case attributes **Approximate Duration:** 3 mins **What to cover:** • Explain each of the following attributes of a Test case to the	

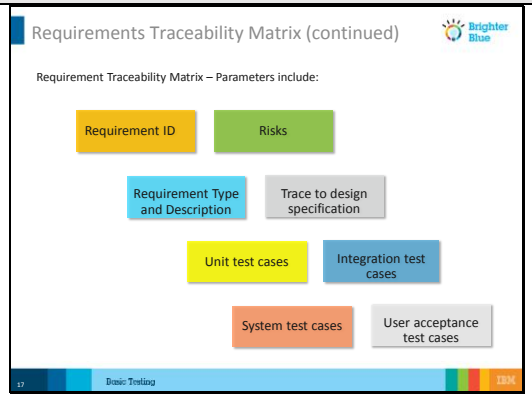
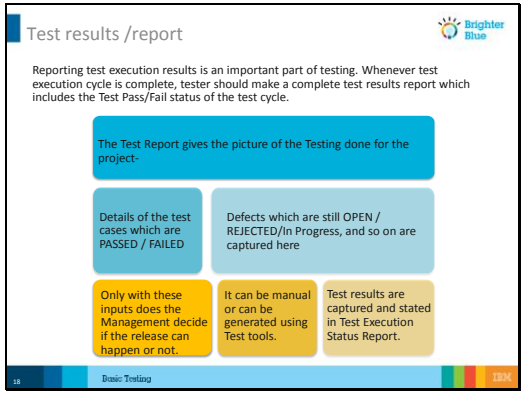
Slide Content	Instructor Guide	Use this space for your own notes
	participants: • Test case id: it must be unique for every test case • Test case name: it should be short • Test case description: it should be brief • Test case priority: priority should be mentioned for each test case • Pre-condition: what all pre-requisites are required for executing a test case • Tester name: who is writing the test case • Requirement id: it should be mapped clearly to the test case id. • Test case type: to identify the type of test case • Test case steps: steps to execute the test case	
Slide 12	**Purpose:** To tell the participants about Test Scripts **Approximate Duration:** 5 mins **What to cover:**	

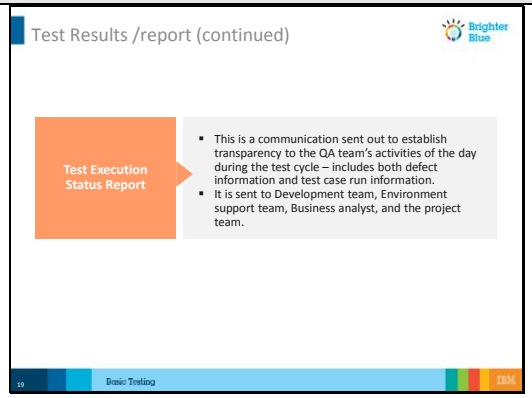
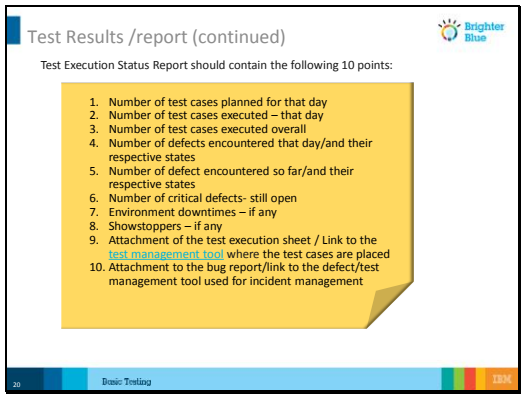
Slide Content	Instructor Guide	Use this space for your own notes
 • A **Test Script** is a set of instructions (written using a scripting/programming language) that is performed on a system under test to verify that the system performs as expected. Test scripts are used in automated testing. **Uses some scripting language** - Some scripting languages used in automated testing are: —JavaScript —Perl —Python —Unix Shell Script —VBScript • **s** - There are also many Test Automation Tools/Frameworks that generate the test scripts for you; without the need for actual coding. Many of these tools have their own scripting languages (some of them based	• Tell the participants about the Test scripts and their usage in automated testing. • List the scripting languages used in automated testing. • Make sure you cover the points in the notes section of the slide (also in the Slide Content Column of this document).	

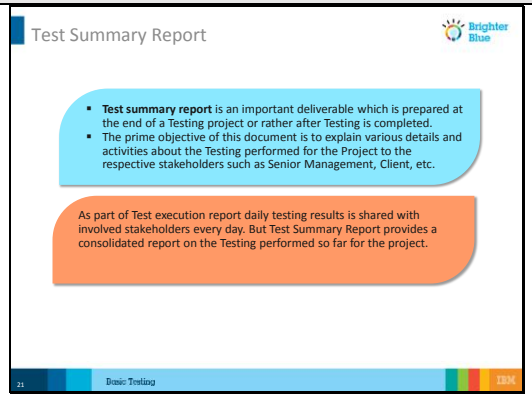
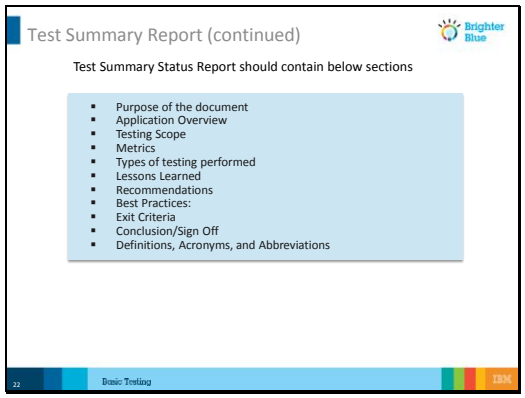
Slide Content	Instructor Guide	Use this space for your own notes
on a core scripting languages). For example, Sikuli, a GUI automation tool, uses Sikuli Script which is based on Python		
Slide 13  	**Purpose:** To tell the participants about Test data that is used in software system **Approximate Duration:** 3mins **What to cover:** • Define Test data to the participants – is the data that is used in tests of a software system. • Tell them how it can either be entered manually while executing test cases or can be read automatically from files by automation tools. • Explain each point on the slide and check if the participants have any questions.	
Slide 14	**Purpose:** To tell about test data that should be included in test data document	

Slide Content	Instructor Guide	Use this space for your own notes
 • **No data:** Run your test cases on blank or default data. See if proper error messages are generated. **Valid data set:** Create it to check if application is functioning as per requirements and valid input data is properly saved in database or files. • **Invalid data set:** Prepare invalid data set to check application behavior for negative values, and alphanumeric string inputs. • **Illegal data format:** Make one data set of illegal data format. System should not accept data in invalid or illegal format. Also check proper error messages are generated. • **Boundary condition data set:** Data set containing out of range data. Identify application boundary cases and prepare data set that will cover lower as well as	**Approximate Duration:** 5mins **What to cover:** Tell the participants about the following categories of test data that should be included in test data document: • **No data:** Run your test cases on blank or default data. See if proper error messages are generated. • **Valid data set:** Create it to check if application is functioning as per requirements and valid input data is properly saved in database or files. • **Invalid data set:** Prepare invalid data set to check application behavior for negative values, and alphanumeric string inputs. • **Illegal data format:** Make one data set of illegal data format. System should not accept data in invalid or illegal format. Also check proper error messages are generated. • **Boundary condition data set:** Data set containing out of range data. Identify application boundary cases and	

Slide Content	Instructor Guide	Use this space for your own notes
upper boundary conditions. • **Data set for performance, load and stress testing:** This data set should be large in volume.	prepare data set that will cover lower as well as upper boundary conditions. • **Data set for performance, load and stress testing:** This data set should be large in volume.	
Slide 15  	**Purpose:** To discuss what is Requirements Traceability Matrix and its usage **Approximate Duration:** 5mins **What to cover:** • Explain to the participants about Requirements Traceability Matrix and its usage	
Slide 16	**Purpose:** To tell the participants about parameters included in Requirements Traceability Matrix **Approximate Duration:** 2mins **What to cover:** Describe the following parameters included in Requirements Traceability Matrix: • Requirement ID	

Slide Content	Instructor Guide	Use this space for your own notes
	• Risks • Requirement Type and Description • Trace to design specification • Unit test cases • Integration test cases • System test cases • User acceptance test cases	
Slide 17 	**Purpose:** To tell the participants about reporting test execution results and is importance **Approximate Duration:** 3mins **What to cover:** ▪ Explain to the participants why a test report is important ▪ Tell the participants why a test report is important to get a complete idea about Testing	
Slide 18	**Purpose:** To discuss with the participants about the importance of the Test Execution status report **Approximate Duration:** 10mins	

Slide Content	Instructor Guide	Use this space for your own notes
	**What to cover:** • Tell the participants what a Test Execution status report. • Mention when it is used. • Point out the importance of Test Execution status reports with them.	
Slide 19 	**Purpose:** To discuss with the participants about test execution test report **Approximate Duration:** 3 mins **What to cover:** • Explain to the participants about test execution test report and the important points it should contain.	
Slide 20	**Purpose:** To explain what is Test Summary Report and how it gives a clear idea about the testing done for the project **Approximate Duration:** 15mins	

Slide Content	Instructor Guide	Use this space for your own notes
	**What to cover:** • Explain why a Test Summary Report is an important deliverable	
Slide 21  • **Purpose of the document:** Short description about the objective of preparing the document • **Application Overview:** Brief description about the application tested	**Purpose:** To explain what is Test Summary Report and how it gives a clear idea about the testing done for the project **Approximate Duration:** 15 mins **What to cover:** • Explain why a Test Summary Report is an important deliverable. • Make sure you cover the points in the notes section of the slide (also in the Slide Content Column of this document).	

Slide Content	Instructor Guide	Use this space for your own notes
• **Testing Scope:** This section explains about the functions/modules in scope and out of scope for testing; Any items which are not tested due to any constraints/dependencies/restrictions • **Metrics:** Metrics will help to understand the test execution results, status of test cases and defects and so on. Required Metrics can be added as necessary. Example: Defect Summary-Severity wise; Defect Distribution-Function/Module wise; Defect Ageing and so on. Charts/Graphs can be attached for better visual representation • **Types of testing performed:** Describe the various types of Testing performed for the Project. This will make sure the application is being tested properly through testing types agreed as per Test Strategy. • **Test Environment and tools:** Provide details on Test Environment in which the Testing is carried out. Server, Database, Application URL and so on. If any Tools were used like Quality Center (now HP ALM) for logging defects • **Lessons Learned:** This section is used to describe the critical issues faced and their solutions (how they were solved during the Testing). Lessons learnt will help to make proactive decisions during the next Testing		

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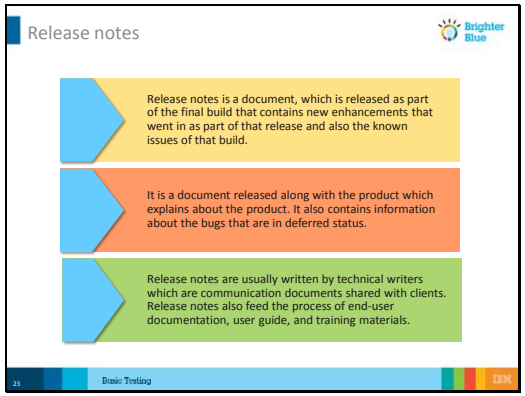
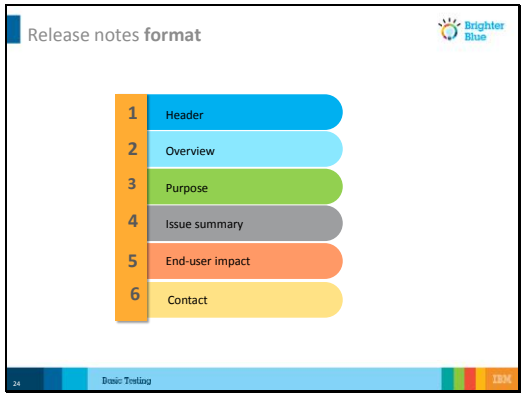
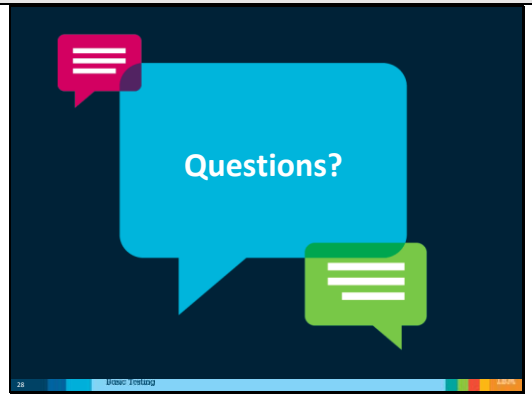
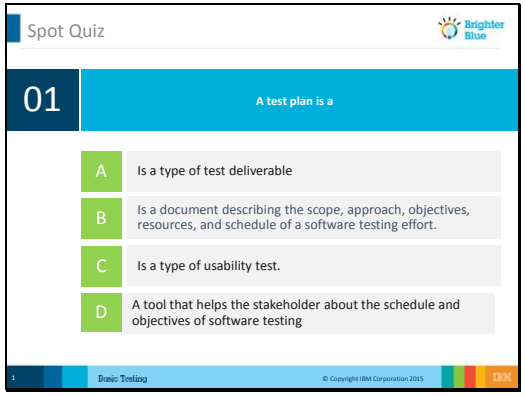
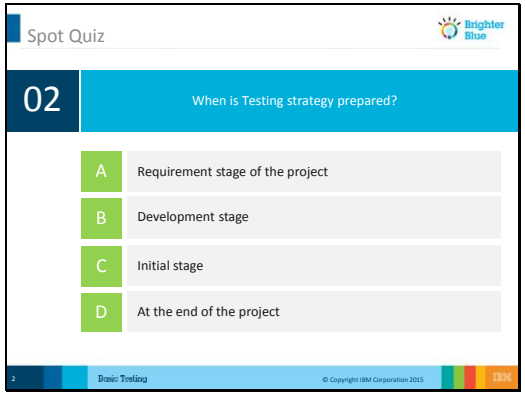
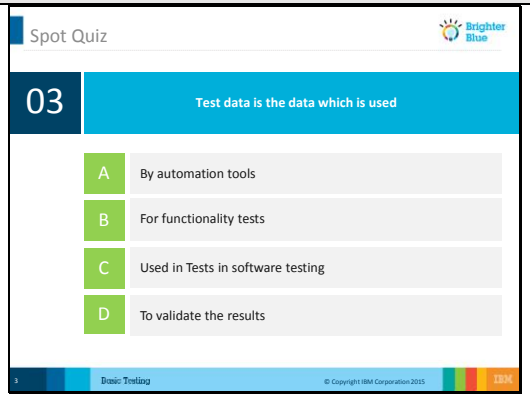
engagement, by avoiding these mistakes or finding a suitable workaround • **Recommendations** : Any workaround or suggestions can be mentioned here • **Best Practices:** There will be lot of activities done by the Testing team during the project. Some of them could have saved time, some proved to be a good and efficient way to work, and so on. These can be documented as a 'Value Add' to show case to the Stakeholders • **Exit Criteria:** Exit Criteria is defined as a Completion of Testing by fulfilling certain conditions like (i) All planned test cases are executed; (iI) All Critical defects are closed and so on. • **Conclusion/Sign Off:** This section will mention whether the Testing team agrees and gives a Green signal for the application to 'Go Live' or not, after the Exit Criteria was met. If the application does not meet the Exit Criteria, then it can be mentioned as – "The application is not suggested to 'Go Live'. It will be left with the decision of Senior Management and Client and other Stakeholders involved to take the call on whether the application can 'Go Live' or not • **Definitions, Acronyms, and Abbreviations** :This section mentions the meanings of		

Slide Content	Instructor Guide	Use this space for your own notes
Abbreviated terms used in this document and any other new definitions		
Slide 22  	**Purpose:** To explain to the participants what are release notes. **Approximate Duration:** 4 mins **What to cover:** • Tell the participants why Release notes are important.	
Slide 23  • **Header**: Name of the document, which carries product name, release number,	**Purpose:** To tell about the format of release notes to the participants **Approximate Duration:** 5mins **What to cover:** • Explain the format of a standard Release note to the participants. • It would be great if you can show an example with the following sections: • **Header**: Name of the document, which carries product name, release number, release date, release note	

Slide Content	Instructor Guide	Use this space for your own notes
release date, release note date and version. • **Overview**: An overview of the product and changes to the recent software version. • **Purpose**: An overview of the purpose of the release notes which lists the new feature, enhancements and defects of the current build. • **Issue summary**: Provides description about the defect. • **End-user impact**: Provides information about the end-users impact due to the defect. • **Contact**: Support contact information	date and version. • **Overview**: An overview of the product and changes to the recent software version. • **Purpose**: An overview of the purpose of the release notes which lists the new feature, enhancements and defects of the current build. • **Issue summary**: Provides description about the defect. • **End-user impact**: Provides information about the end-users impact due to the defect. • **Contact**: Support contact information.	
Slide 24	**Approximate Duration:** 5 mins **What to cover:** • Ask the participants if they have any questions. • Include any questions that will be addressed later in the course as parking lot items • Use this activity to recap the key	

Slide Content	Instructor Guide	Use this space for your own notes
	takeaways from this module	
Slide 25 	**Purpose:** To check knowledge of the participants and break the monotony. **Approximate Duration:** 2 mins **What to cover:** • Ask the participants the question on the slide. Treat the question as a poll - Ask them to raise their hands based on their answer. • The correct answer is **B. Is a document describing the scope, approach, objectives, resources, and schedule of a software testing effort?** • Explain why B is the correct answer. • For each incorrect answer, first explain	

Slide Content	Instructor Guide	Use this space for your own notes
	why it is incorrect and then point out the correct answer.	
Slide 26  	**Purpose:** To check knowledge of the participants and break the monotony. **Approximate Duration:** 2 mins **What to cover:** • Ask the participants the question on the slide. Treat the question as a poll - Ask them to raise their hands based on their answer. • The correct answer is **A. Requirement stage of the project.** Explain why A is the correct answer. • For each incorrect answer, first explain why it is incorrect and then point out the correct answer.	
Slide 27	**Purpose:** To check knowledge of the participants and break the monotony. **Approximate Duration:** 2 mins **What to cover:** • Ask the participants the question on the slide. Treat the question as a poll - Ask them to raise their hands based	

Slide Content	Instructor Guide	Use this space for your own notes
	on their answer. • The correct answer is **C. Used in Tests in software testing**. Explain why C is the correct answer. • For each incorrect answer, first explain why it is incorrect and then point out the correct answer.	