Department of Information Technology

Audit Course on "Agile Methodologies"

INDEX

Head Dept. of IT
CBIT, Hyderabad

"Agile Methodologies" Audit Course Report

Faculty Name: Dr. Sreekumar Vobugari, Adjunct Faculty

Dr. Sreekumar Vobugari, adjunct faculty in the Information Technology Department, has visited the department on 8 Saturdays to deliver the audit course on "Agile Methodologies". Every Saturday, 9:10 am to 12:10 pm and 1 pm to 4 pm classes were organized. Total 51 hours class work conducted for this audit course on every Saturday for 6 hours and one Sunday, he has taken online class for 3 hours. The targeted students for this audit course are V sem B.E. IT Students. The audit course classes were organized in the N-Block Seminar Hall. Dr. Sreekumar delivered classes on Agile methodologies principles and real time usage of these methodologies in the software industry to deliver quality products and projects. He said that the Agile methodology is a project management approach that involves breaking the project into phases and emphasizes continuous collaboration and improvement. Teams follow a cycle of planning, executing, and evaluating. The IT Department HoD, Rajanikanth Aluvala motivated the students, to learn and experience about the real time project management approaches with this audit course. The event coordinated by Dr.B.Veera Jyothi, Associate Professor, Department of IT and Dr.N.Sudhakar Yadav, Associate Professor, Department of IT. Interested faculty members and selected students of this audit course attended every Saturday and understood the importance of agile methodology i.e. it helps to ensure that development teams to complete projects on time and within budget.

The following are the outcomes of the event:

- Understanding what and why Agile Methodology
- Understanding overview of Agile Principles
- Understanding overview of Scrum Principles
- Understanding XP Principles
- Understanding Continuous Integration.

20ITV01   **AGILE METHODOLOGIES**
                                           (Audit course)

Course Objectives:
1. To provide students with a theoretical as well as practical understanding of agile software development practices and how small teams can apply them to create high-quality software.
2. To provide a good understanding of software design and a set of software technologies and APIs.
3. To do a detailed examination and demonstration of Agile development and testing techniques.
4. To understand the benefits and pitfalls of working in an Agile team.
5. To understand Agile development and testing.

Course Outcomes:
Upon successful completion of this course, students will be able to:
1. Compare Agile model with traditional models and explain the principles of agile model.
2. Perform iterative agile software processes.
3. Analyze the impact of agile knowledge management in the software development process.
4. Realize the importance of interacting with business stakeholders in determining the requirements for agile software system.
5. Develop techniques and tools for improving team collaboration and agile software quality.

UNIT-I

Agile Methodology: Theories for Agile Management – Agile Software Development – Traditional Model vs. Agile Model - Classification of Agile Methods – Agile Manifesto and Principles – Agile Project Management – Agile Team Interactions – Ethics in Agile Teams - Agility in Design, Testing – Agile Documentations – Agile Drivers, Capabilities and Values.

UNIT–II
Agile Processes: Lean Production - SCRUM, Crystal, Feature Driven Development- Adaptive Software Development - Extreme Programming: Method Overview – Lifecycle – Work Products, Roles and Practices.

UNIT–III
Agility And Knowledge Management: Agile Information Systems – Agile Decision Making - Earl_S Schools of KM – Institutional Knowledge Evolution Cycle – Development, Acquisition, Refinement, Distribution, Deployment, Leveraging – KM in Software Engineering – Managing Software Knowledge –

Challenges of Migrating to Agile Methodologies – Agile Knowledge Sharing – Role of Story-Cards – StoryCard Maturity Model(SMM).

UNIT–IV

Agility And Requirements Engineering: Impact of Agile Processes in RE–Current Agile Practices – Variance – Overview of RE Using Agile – Managing Unstable Requirements – Requirements Elicitation

– Agile Requirements Abstraction Model – Requirements Management in Agile Environment, Agile Requirements Prioritization – Agile Requirements Modeling and Generation – Concurrency in Agile Requirements Generation.

UNIT-V

Agility And Quality Assurance: Agile Product Development – Agile Metrics – Feature Driven Development (FDD) – Financial and Production Metrics in FDD – Agile Approach to Quality Assurance

- Test Driven Development – Agile Approach in Global Software Development.

Text Books:
1. David J. Anderson and Eli Schragenheim, "Agile Management for Software Engineering: Applying the Theory of Constraints for Business Results", Prentice Hall, 2003.
2. Hazza and Dubinsky, "Agile Software Engineering, Series: Undergraduate Topics in ComputerScience", Springer, 2009.

Suggested Reading:
1. Craig Larman, "Agile and Iterative Development: A Managerial Guide", Addison-Wesley,2004.
2. 2. Kevin C. Desouza, "Agile Information Systems: Conceptualization, Construction, andManagement", Butterworth-Heinemann, 2007.

Web Resource:
1. https://www.coursera.org/specializations/agile-development

S.No.	Roll No.	Name of the Student	Month 09 / Date 09 / Lect.No. 1	09 / 16 / 2	09 / 23 / 3	09 / 30 / 4	10 / 21 / 5	11 / 11 / 6	11 / 19 / 7	11 / 25 / 8	12 09 / 07 / 9	09 / 10	/ 11	/ 12	/ 13	/ 14	/ 15	/ 16	Others	S3	Ave
1	1601-21-737-001	Amne Supriya	6	12	18	24	30	36	39	42	48										
2	002	Bandam Deekshitha	A	6	12	18	24	30	A	36	42										
3	003	Bandela Rakshitha	6	12	18	24	30	36	39	45	51										
4	004	Bandhu Sindhu	6	12	18	24	30	36	39	45	51										
5	005	Chintbalagani Bhavitha	6	A	12	18	24	30	A	36	42										
6	006	Dama Pranati Gaya	6	12	18	24	30	36	39	45	51										
7	012	Malam Sanjana	6	12	18	24	30	36	A	42	48										
8	016	Paduru Akshaya Reddy	6	12	18	24	30	36	39	45	51										
9	025	Abinav Peddigari	6	A	12	18	24	30	33	39	45										
10	026	Akavarapu Teja Dutt	6	12	18	A	24	30	33	39	45										
11	032	Devireddy Sai Rishikar	6	12	18	24	A	30	33	39	45										
12	036	Kathuri Sai Kiran	6	12	18	24	30	36	39	45	A										
13	037	Khaja Wasetuddin Ahmed	6	9	15	21	27	33	36	39	45										
14	038	Koduri Aman Chandra	A	6	9	15	21	27	30	36	42										
15	039	Kondoji Gopi krishna	6	12	18	24	30	36	39	42	48										
16	040	Konukonda Jai Naga phanindra	6	12	18	24	30	36	39	45	51										
17	044	Mohnish Rudhil pala	6	12	18	24	30	36	39	45	51										
18	050	Peesala Balakrishna	6	12	15	21	27	33	36	42	48										
19	302	Vignesh Ananth chenna	6	12	15	21	27	33	36	42	48										
20	306	Livgala Poojitha	6	12	18	24	30	36	39	45	51										
21	075	G.L.Naga Devi Sushmitha	6	12	18	24	30	36	39	A	45										
22	076	Guduguntla Varsha	6	12	18	24	30	36	39	A	45										
23	077	Kalakoti Lakshmi Prasanna	6	12	18	24	30	36	39	45	48										
24	081	Kolipara Naga Saranvitha	6	12	18	24	30	36	39	45	51										
25	085	Landuri Shivani	6	12	A	18	24	30	36	39	45										
26	086	Mohamood Farha Fathima	6	12	18	24	30	36	39	45	51										
27	087	Mamidi parvathi priya	6	12	18	24	30	36	39	45	48										
28	088	Mudavath Rani	6	12	18	24	30	36	39	45	51										
29	089	Nagarapu Praanavi	6	12	18	24	30	36	39	45	51										
30	092	Palreddy Vaishnavi Simran	6	12	18	24	30	36	A	42	48										

Faculty Signature :

ATTENDANCE

S.No.	Roll No.	Name of the Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Month			09	09	09	09	10	11	11	11	12							
Date			09	11	23	30	29	11	18/13	25	09							
31	1601-21-737-097	Venukanti Mamatha	6	12	18	A	24	30	33	39	45							
32	098	Vurimella Srija	6	12	18	24	30	36	39	45	51							
33	099	Adepu Varun Sai Krishna	6	12	18	24	30	36	39	45	51							
34	101	Bamla Sujith Kumar	A	6	12	18	24	30	33	39	45							
35	117	Mohammad Aman	A	6	12	18	24	30	A	36	42							
36	122	Nerudumalli Chaitanya	6	12	18	24	30	36	39	45	51							
37	130	Salendra Ravi Teja	6	12	18	24	30	36	A	42	48							
38	308	Shree Keerthana Badi	6	9	15	21	27	33	36	42	48							
39	310	Cheeru Shashank	6	12	A	18	24	30	A	36	42							
40	311	Manthena Sruthi	6	12	18	A	24	30	A	36	42							
41	141	Attireju Sai Ramya	6	12	18	24	30	36	39	45	51							
42	142	Ananya Badireddy	6	12	18	24	30	36	39	45	51							
43	143	Ankuri Mounika	6	12	18	24	30	36	A	42	48							
44	144	Asani Varsha Reddy	6	12	18	24	30	36	39	45	51							
45	148	Challa Aashmitha	6	12	18	24	30	36	39	45	51							
46	149	Chava Srija Chowdary	6	9	15	21	27	33	36	42	48							
47	150	Gade Jeevana Sandhya	6	12	18	24	30	36	39	A	45							
48	151	Ishita Pallempati	6	12	18	24	30	36	39	45	A							
49	159	Vaitla Vaishnavi	6	12	18	24	30	36	39	45	51							
50	166	B. Goutham	6	12	18	24	30	36	39	45	51							
51	175	Jilla Mani Tej	6	12	18	24	30	36	39	45	51							
52	181	Kotigari Suman	6	9	15	21	27	33	A	39	45							
53	182	Mahesh Krishna Jamshed	6	9	15	21	27	33	36	42	48							
54	195	Sudireddy Rohith Reddy	6	12	18	24	30	36	39	45	51							
55	197	Talluri Saikrishna Tej	6	12	18	24	30	36	39	45	51							
56	201	Vooradi Harshith	6	12	A	18	24	30	33	39	45							
57	203	Vuchbagiri Pranav	6	12	15	21	27	33	36	42	48							
58	315	Vennu Akshay Kumar	6	12	18	24	30	36	39	45	A							
59	318	Battapla Prashanth Reddy	6	12	18	24	30	36	39	A	45							
60	319	Dasari Navya Krishna	6	12	18	24	30	36	39	45	51							

Faculty Signature :

SNo	Dates	Topics covered
1	09-09-2023	**LEARNING AGILE (part 1):** Getting Agile into Your Brain, Understanding Agile Values, No Silver Bullet, Agile to the Rescue, Adding Agile Makes a Difference. A Fractured Perspective, How a Fractured Perspective Causes Project Problems. The Agile Manifesto, Purpose Behind Each Practice
2	16-09-2023	**LEARNING AGILE (part 2)**: Individuals and Interactions Over Processes and Tools, Working Software Over Comprehensive Documentation, Customer Collaboration Over Contract Negotiation, Responding to Change Over Following a Plan, Principles Over Practices. Understanding the Elephant, Methodologies Help You Get It All in Place at Once, Where to Start with a New Methodology.
3	23-09-2023	**THE AGILE PRINCIPLES(Part-I)::** The 12 Principles of Agile Software, The Customer Is Always Right...Right? , "Do As I Say, Not As I Said". Delivering the Project, Communicating and Working Together, Project Execution—Moving the Project Along, A Better Working Environment for the Ebook Reader Project Team.
4	30-09-2023	**THE AGILE PRINCIPLES (Part-II):** Constantly Improving the Project and the Team. The Agile Project: Bringing All the Principles Together **SCRUM AND SELF-ORGANIZING TEAMS:** The Rules of Scrum, Act I: I Can Haz Scrum?, Everyone on a Scrum Team Owns the Project, The Scrum Master Guides the Team's Decisions, The Product Owner Helps the Team Understand the Value of the Software, Everyone Owns the Project, Scrum Has Its Own Set of Values ,Status Updates Are for Social Networks!, The Whole Team Uses the Daily Scrum, Feedback and the Visibility-Inspection-Adaptation Cycle, The Last Responsible Moment, How to Hold an Effective Daily Scrum. Sprinting into a Wall, Sprints, Planning, and Retrospectives, Iterative or Incremental?, The Product Owner Makes or Breaks the Sprint, Visibility and Value, How to Plan and Run an Effective Scrum Sprint.
5	21-10-2023	**SCRUM PLANNING AND COLLECTIVE COMMITMENT**: Not Quite Expecting the Unexpected, User Stories, Velocity, and Generally Accepted Scrum Practices, Make Your Software Useful, User Stories Help Build Features Your Users Will Use, Conditions of Satisfaction, Story Points and Velocity, Burndown Charts, Planning and Running a Sprint Using Stories, Points, Tasks, and a Task Board. Victory Lap, Scrum Values Revisited, Practices Do Work Without the Values (Just Don't Call It Scrum), Is Your Company's Culture Compatible with Scrum Values?
6	11-11-2023	**XP AND EMBRACING CHANGE:** Going into Overtime, The Primary Practices of XP, Programming Practices, Integration Practices, Planning Practices, Team Practices, Why Teams Resist Changes, and How the Practices Help. The Game Plan Changed, but We're Still Losing, The XP Values Help the Team Change Their Mindset, XP Helps Developers Learn to Work with Users,

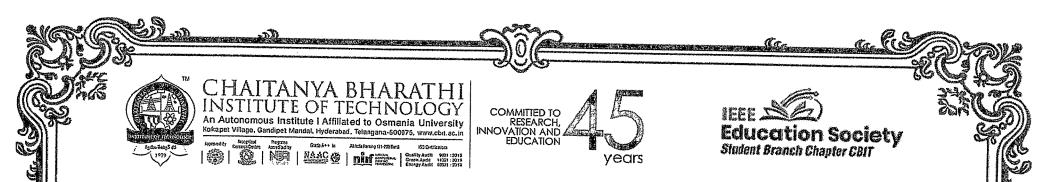|		The Principles of XP, XP Principles Help You Understand Planning, XP Principles Help You Understand Practices—and Vice Versa, Feedback Loops
7	19-11-2023	**XP, SIMPLICITY, AND INCREMENTAL DESIGN(Part-I):** Code and Design, Code Smells and Antipatterns (or, How to Tell If You're Being Too Clever), XP Teams Look for Code Smells and Fix Them, Hooks, Edge Cases, and Code That Does Too Much. Make Code and Design Decisions at the Last Responsible Moment, Fix Technical Debt by Refactoring Mercilessly, Use Continuous Integration to Find Design Problems, Avoid Monolithic Design, Incremental Design and the Holistic XP Practices. (3 Hours Online Session)
8	25-11-2023	**XP, SIMPLICITY, AND INCREMENTAL DESIGN (Part-II):** Teams Work Best When They Feel Like They Have Time to Think, Team Members Trust Each Other and Make Decisions Together. The XP Design, Planning, Team, and Holistic Practices Form an Ecosystem Incremental Design Versus Designing for Reuse, When Units Interact in a Simple Way, the System Can Grow Incrementally, Great Design Emerges from Simple Interactions, Final Score.
9	09-12-2023	**LEAN, ELIMINATING WASTE, AND SEEING THE WHOLE:** Lean Thinking, Commitment, Options Thinking, and Set-Based Development, Creating Heroes and Magical Thinking. Eliminate Waste, Use a Value Stream Map to Help See Waste Clearly, Gain a Deeper Understanding of the Product, See the Whole, Find the Root Cause of Problems That You Discover. Deliver As Fast As Possible, Use an Area Chart to Visualize Work in Progress, Control Bottlenecks by Limiting Work in Progress.

The following students selected this audit course:

SNo	Roll Number	Name of the Candidate
1	1601-21-737-001	ANNE SUPRIYA
2	1601-21-737-002	BANDAM DEEKSHITHA
3	1601-21-737-003	BANDELA RAKSHITHA
4	1601-21-737-004	BANOTHU SINDHU
5	1601-21-737-005	CHINTHALAGARI BHAVITHA
6	1601-21-737-006	DAMA PRANATI SREYA
7	1601-21-737-012	MASAM SANJANA
8	1601-21-737-016	PADURU AKSHAYA REDDY
9	1601-21-737-025	ABINAV PEDDIGARI
10	1601-21-737-026	AKAVARAPU TEJA DUTT
11	1601-21-737-032	DEVIREDDY SAI RISHIKAR
12	1601-21-737-036	KATKURI SAI KIRAN
13	1601-21-737-037	KHAJA WASEEUDDIN AHMED
14	1601-21-737-038	KODURI AMAN CHANDRA
15	1601-21-737-039	KONDAJI GOPI KRISHNA
16	1601-21-737-040	KORUKONDA JAI NAGA PHANINDRA
17	1601-21-737-044	MOHNISH RUSHIL PALA
18	1601-21-737-050	PEESALA BALAKRISHNA
19	1601-21-737-302	VIGNESH ANANTH CHENNA
20	1601-21-737-306	LINGALA POOJITHA
21	1601-21-737-075	GUDAPATI LAKSHMI NAGA DEVI SUSHMITHA
22	1601-21-737-076	GUDUGUNTLA VARSHA
23	1601-21-737-077	KALAKOTI LAXMI PRASANNA
24	1601-21-737-081	KOLLIPARA NAGA SAMANVITHA
25	1601-21-737-085	LANDERI SHIVANI
26	1601-21-737-086	MAHMAD FARHA FATHIMA
27	1601-21-737-087	MANDLA PARVATHI PRIYA
28	1601-21-737-088	MUDAVATH RANI
29	1601-21-737-089	NAGARAPU PRANAVI
30	1601-21-737-092	PALREDDY VAISHNAVI SIMRAN
31	1601-21-737-097	VENUKANTI MAMATHA
32	1601-21-737-098	VURIMELLA SRIJA
33	1601-21-737-099	ADEPU VARUN SAI KRISHNA
34	1601-21-737-101	BANDA SUJITH KUMAR
35	1601-21-737-117	MOHAMMED AMAAN
36	1601-21-737-122	NEREDUMALLI CHAITANYA
37	1601-21-737-130	SALENDRA RAVI TEJA
38	1601-21-737-308	SHREE KEERTHANA BODI
39	1601-21-737-310	CHEERE SHASHANK
40	1601-21-737-311	MANTHENA SRUTHI
41	1601-21-737-141	AKKIRAJU SAI RAMYA
42	1601-21-737-142	ANANYA BASIREDDY
43	1601-21-737-143	ANKURI MOUNIKA
44	1601-21-737-144	ASANI VARSHA REDDY
45	1601-21-737-148	CHALLA AASHMITHA
46	1601-21-737-149	CHAVA SRIJA CHOWDARY
47	1601-21-737-150	GADE JEEVANA SANDHYA
48	1601-21-737-151	ISHITA PALLEMPATI
49	1601-21-737-159	VAITLA VAISHNAVI
50	1601-21-737-166	B GOUTHAM
51	1601-21-737-175	JILLA MANI TEJ
52	1601-21-737-181	KOTIGARI SUMAN
53	1601-21-737-182	MAHESH KRISHNA JAMCHED
54	1601-21-737-195	SUDIREDDY ROHITH REDDY
55	1601-21-737-197	TALLURI SAIKRISHNA TEJ
56	1601-21-737-201	VOORADI HARSHITH

57	1601-21-737-203	VUDDAGIRI PRANAV
58	1601-21-737-315	VENNU AKSHAY KUMAR
59	1601-21-737-318	BAKKAPOLLA PRASHANTH REDDY
60	1601-21-737-319	DASARI NAVYA KRISHNA

The following are glimpse of Audit Course:

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

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Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in

COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION

45 years

IEEE
Education Society
Student Branch Chapter CBIT

Certificate of Completion

This Certificate is awarded to Mr./Ms. *Anne Supriya* bearing Roll Number *16021737001* for successfully completing the 51 hour value added course on **"Agile Methodologies"** organized by **Department of Information Technology,** conducted on Every Saturday from 9.10AM to 12.10PM and 1PM to 4PM from 09-09-2023 to 09-12-2023.

Dr.N.Sudhakar Yadav
Course Coordinator

Dr.B.Veera Jyothi
Course Coordinator

Prof. Rajanikanth Aluvalu
Head, Dept. of IT

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45 years

IEEE Education Society
Student Branch Chapter CBIT

Certificate of Completion

This Certificate is awarded to Mr./Ms. *Pranati Sreya* bearing Roll Number *1602173706* for successfully completing the 51 hour value added course on **"Agile Methodologies"** organized by **Department of Information Technology,** conducted on Every Saturday from 9.10AM to 12.10PM and 1PM to 4PM from 09-09-2023 to 09-12-2023.

Dr.N.Sudhakar Yadav
Course Coordinator

Dr.B.Veera Jyothi
Course Coordinator

Prof. Rajanikanth Aluvalu
Head, Dept. of IT

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EDUCATION

45
years

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Certificate of Completion

This Certificate is awarded to Mr./Ms. *Katkuri Sai Kiran* bearing Roll Number *1602137036* for successfully completing the 51 hour value added course on **"Agile Methodologies"** organized by **Department of Information Technology,** conducted on Every Saturday from 9.10AM to 12.10PM and 1PM to 4PM from 09-09-2023 to 09-12-2023.

Dr.N.Sudhakar Yadav
Course Coordinator

Dr.B.Veera Jyothi
Course Coordinator

Prof. Rajanikanth Aluvalu
Head, Dept. of IT

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EDUCATION
45 years

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Student Branch Chapter CBIT

Certificate of Completion

This Certificate is awarded to Mr./Ms. **Gudapati Lakshmi Naga Devi Sushmitha** bearing Roll Number **1602137075** for successfully completing the 51 hour value added course on **"Agile Methodologies"** organized by **Department of Information Technology,** conducted on Every Saturday from 9.10AM to 12.10PM and 1PM to 4PM from 09-09-2023 to 09-12-2023.

Dr.N.Sudhakar Yadav
Course Coordinator

Dr.B.Veera Jyothi
Course Coordinator

Prof. Rajanikanth Aluvalu
Head, Dept. of IT

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Certificate of Completion

This Certificate is awarded to Mr./Ms. *Adepu Varun Sai Krishna* bearing Roll Number *1602137099* for successfully completing the 51 hour value added course on **"Agile Methodologies"** organized by **Department of Information Technology,** conducted on Every Saturday from 9.10AM to 12.10PM and 1PM to 4PM from 09-09-2023 to 09-12-2023.

Dr.N.Sudhakar Yadav
Course Coordinator

Dr.B.Veera Jyothi
Course Coordinator

Prof. Rajanikanth Aluvalu
Head, Dept. of IT

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Certificate of Completion

This Certificate is awarded to Mr./Ms. *Vennu Akshya Kumar* bearing Roll Number *1602137315* for successfully completing the 51 hour value added course on **"Agile Methodologies"** organized by **Department of Information Technology**, conducted on Every Saturday from 9.10AM to 12.10PM and 1PM to 4PM from 09-09-2023 to 09-12-2023.

Dr.N.Sudhakar Yadav
Course Coordinator

Dr.B.Veera Jyothi
Course Coordinator

Prof. Rajanikanth Aluvalu
Head, Dept. of IT

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