



# Pre Joining Program (PJP)

# About us

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The content and the program approach is strictly confidential. It is strictly forbidden to share any part of this program design approach with any third party

# Graduate Hire Training Program

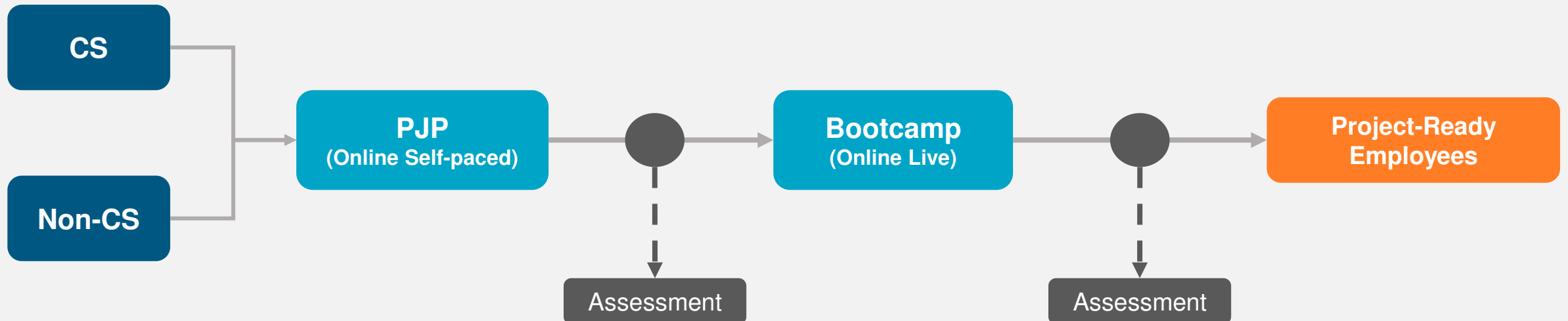
Our Graduate Hire Training program comprises of:



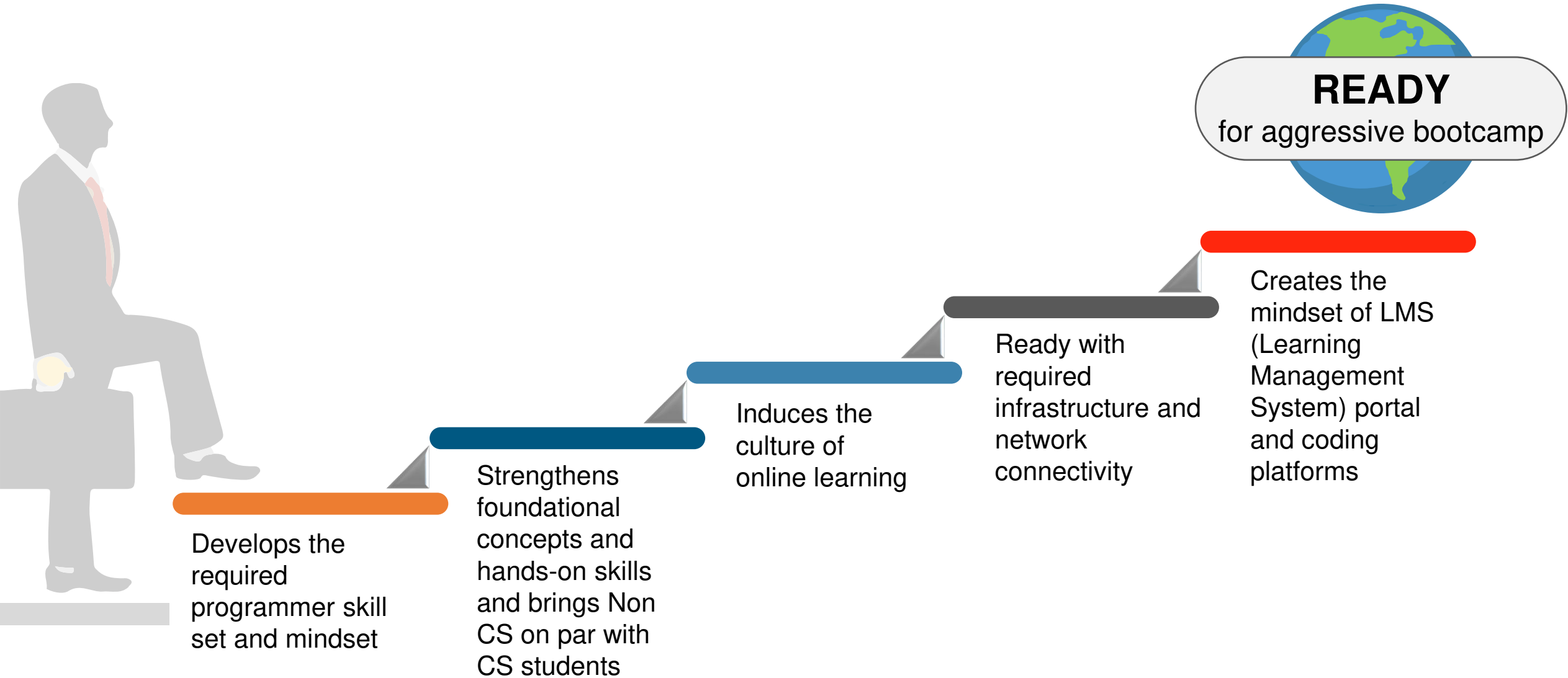
Remote Pre-Joining Program (PJP) delivered online through self paced e-learning and webinars



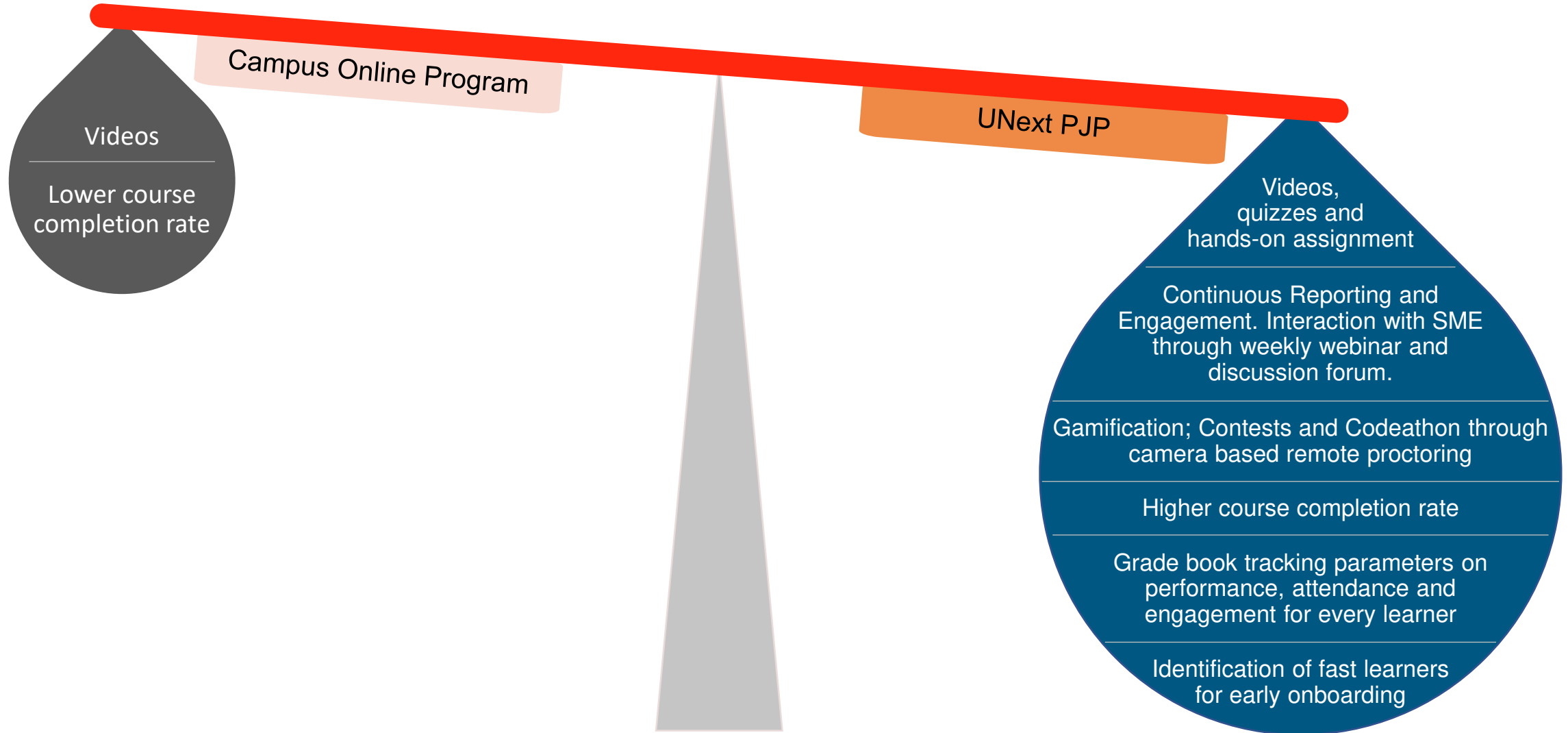
Bootcamp delivered through Live Virtual classroom sessions



# PJP Programs



# Traditional Programs vs PJPs



# Benefits of PJP Programs

## Resource Planning

Better visibility on joining numbers

## Talent Retention

% increase in offer conversion – early engagement

## Direct Cost Saving

# of days reduction in Bootcamp Training duration (about 10-15 days) / flexibility to cover advanced topics

## Revenue

Reduction in Bootcamp Training duration leads to increased revenue through early billing

# PJP Enhancements

## Challenges of traditional self paced learning

Monotonous learning by watching videos

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Unable to measure hands-on skill development

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Only MCQ based assessment

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Learner engagement

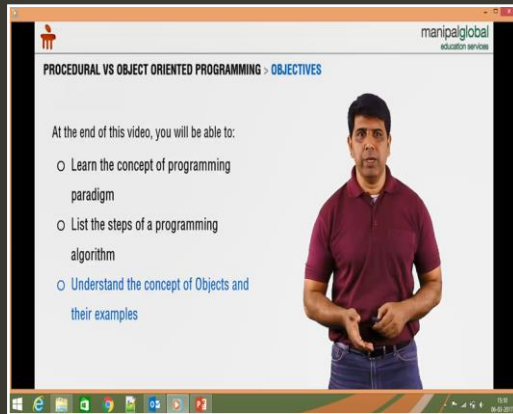


## PJP Enhancements

- ✓ Coding Platform
- ✓ Contests
- ✓ Spring/Milestone based project approach.
- ✓ Codeathon
- ✓ More Faculty connect sessions
- ✓ Camera based Remote Proctoring

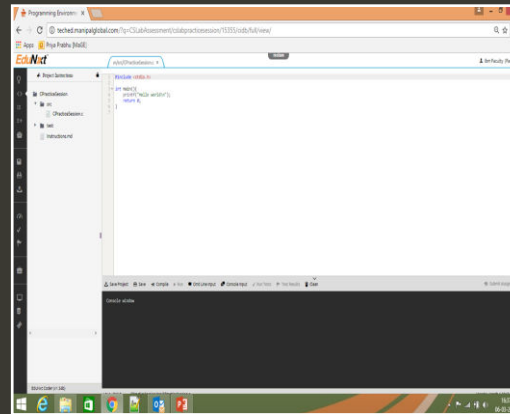
# PJP: Engagement Components

## Digital Learning



- Concept Videos
- Demonstration Videos
- Reading Material
- Quiz

## Code Labs Remote Proctored Assessments



- Hands On Assignments
- Codeathons
- Remote Proctored Assessments

## Ops Support



- Announcements
- E-mails
- SMS
- Voice Drops
- Calls

## Academic Support



- ASK forum
- Weekly Webinars
- Discussion forum

# PJP: Driven through the LMS Platform

## LMS platform has:

### Content

- Presentation deck
- Self paced (Videos)
- Reading material
- Recorded sessions

### Assignment

- Quizzes
- Coding – Integrated coding platform

### Assessment

- MCQ
- Coding– Integrated coding platform
- **Camera based Remote Proctored**

### Performance

- Grade book
- Leader board

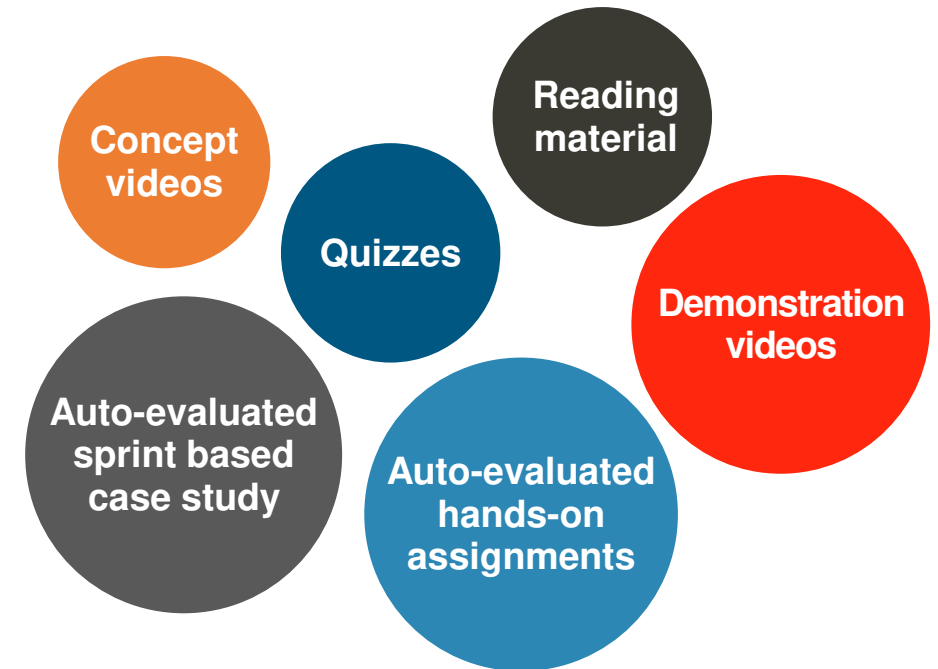
The screenshot displays an LMS interface for the course '02 - OOPS in C# - Additional Topics'. The interface is organized into three main sections: Learn, Practice, and Coding Exercise. The Learn section contains three video items: 'Nullable Types Demo', 'Object Initializers Demo', and 'Implementing Dispose Demo'. The Practice section contains four reading material items: 'Arrays Class', 'Partial Types, Extension Methods', 'Regular Expressions', and 'Static Classes'. The Coding Exercise section contains one quiz item: '02 - OOPS in C# - Additional Topics - Quiz'. The interface also shows progress bars for each item, with the quiz item showing a 100% completion status. The interface is labeled with 'Videos', 'Reading material', 'Quizzes', and 'Coding assignments' on the right side.

| Section         | Item                                       | Progress | Category           |
|-----------------|--------------------------------------------|----------|--------------------|
| Learn           | Nullable Types Demo                        | 0%       | Videos             |
|                 | Object Initializers Demo                   | 0%       | Videos             |
|                 | Implementing Dispose Demo                  | 0%       | Videos             |
| Practice        | Arrays Class                               | 0%       | Reading material   |
|                 | Partial Types, Extension Methods           | 0%       | Reading material   |
|                 | Regular Expressions                        | 0%       | Reading material   |
|                 | Static Classes                             | 0%       | Reading material   |
| Practice        | 02 - OOPS in C# - Additional Topics - Quiz | 0%       | Quizzes            |
| Coding Exercise | 02 - DoSelect Coding - Arrays1             | 100%     | Coding assignments |

# Content: Languages and Frameworks

- ✓ Java Full Stack
- ✓ Microsoft .NET Full Stack
- ✓ MEAN
- ✓ MERN
- ✓ Automation Testing
- ✓ C, C++
- ✓ DBMS
- ✓ BI
- ✓ Python
- ✓ Data Science
- ✓ Cloud
- ✓ Machine Learning
- ✓ Artificial Intelligence

- Around 1600 hours of online content available
- Content includes:

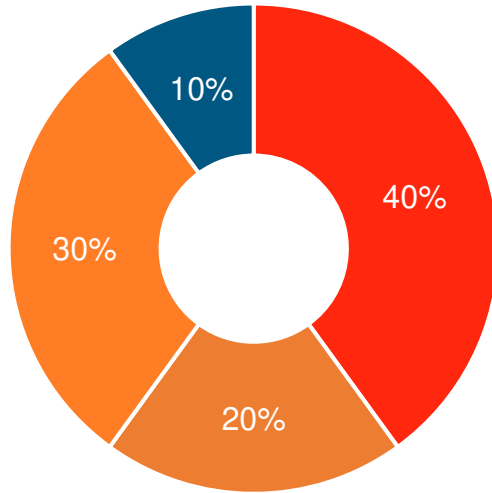


# Programming Environment

## Code – based Assessments

The screenshot displays the UNEXT Programming Lab interface. At the top, the UNEXT logo is visible, along with navigation links for Dashboard, All Courses, and the current course, UNEXT - LXP - AI-ML. The main heading is "Programming Lab". Below this, the current project is "Python Console Project", and the selected file is "P\_Word\_Frequency". The problem statement is: "Write a Python function that takes a string as input and returns a dictionary where the keys are the words from the strings and values for those keys are frequency of those words in the given string." The input is "A string S." and the output is "A dictionary where keys are the words in S and values are the frequency of those words in S." The interface includes a "Collapse Console" button, a toolbar with "Save All", "Compile", "Console Input", "Run", "Run Tests", "Test Results", "Clean", and "Submit Project" buttons. A console window at the bottom shows a green message: "Project P\_Word\_Frequency Loaded". The date "Wednesday July 5 202" is visible in the bottom right corner.

# Learning Cycle



■ Concept Videos + Reading Materials ■ Demo Videos ■ Assignments ■ Quiz

## Recommended learning hours

- 10-12 hours / week while in college
- 18-20 hours / week after college exam and before joining

## For 10 hours of learning for a hands-on module

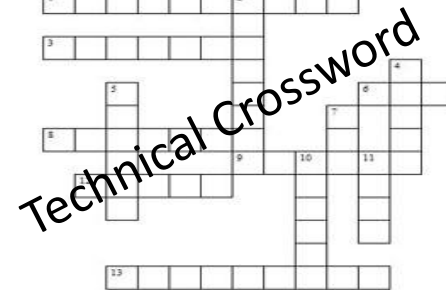
- 4 hours of concept videos + reading material
- 2 hours of demo videos
- 4 assignment questions (3 hours)
- 20 quiz questions (1 hour)

# Webinar Pedagogy

- Scheduled every week
- Announcements are sent to the students prior to the webinars

Activities conducted during webinars

Q & A Sessions



Jayam Gopammagari Vivekananda posted in Online - Content



Good evening sir, Please explain the concept of timing diagram in detail with clear examples?

👍 Like (2) 💬 Answer (3)

ASK forum – questions are discussed

Showcasing how each of the concepts that they learn co-relate to developing an end product(application)

# Assessments

# Assessments

- Camera based ***remote proctoring***
- Preliminary system check for parameters
- Real time AI-ML based alerts on attempts to malpractice
- Automated credibility scores
- Artefacts captured for post facto verification

| Person ID | Assessment ID | Date of Test<br>[YYYY-MM-DD] | Pre Assessment –<br>Slot 3 Dec 23 (Score) | Pre Assessment -<br>Slot 3 Dec 23 (%) | RP Score | Status |
|-----------|---------------|------------------------------|-------------------------------------------|---------------------------------------|----------|--------|
| 133699    | 140053        | 2020-12-23                   | 11                                        | 44                                    | 91       | GRADED |
| 133700    | 140053        | 2020-12-23                   | 15                                        | 60                                    | 0        | GRADED |
| 133701    | 140053        | 2020-12-23                   | 12                                        | 48                                    | 88       | GRADED |
| 133702    | 140053        | 2020-12-23                   | 6                                         | 24                                    | 94       | GRADED |
| 133705    | 140053        | 2020-12-23                   | 6                                         | 24                                    | 91       | GRADED |

# Sample Remote Proctoring Report



CONCLUSION  
negative

FACE MATCH  
96%

CREDIBILITY  
0%

## Student profile

|                                                                                   |              |          |
|-----------------------------------------------------------------------------------|--------------|----------|
|  | Login        | AA04UTF9 |
|                                                                                   | Name         | AA04UTF9 |
|                                                                                   | Gender       | —        |
|                                                                                   | Age          | —        |
|                                                                                   | Additionally | —        |
|                                                                                   |              |          |

## Proctoring session

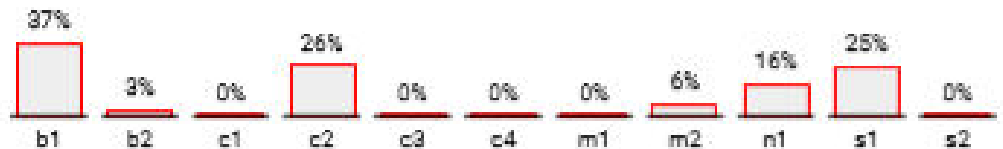
|                           |                             |
|---------------------------|-----------------------------|
| ID                        | MT1014903                   |
| Subject                   | A024647_E227501             |
| Start date and time       | 8/28/2019, 9:43:14 AM (UTC) |
| Duration                  | 65 min                      |
| Estimation of credibility | 0%                          |
| Face match                | 96%                         |
| Conclusion                | Negative                    |
| Proctor                   | —                           |
| Comment                   | —                           |

## Distribution of events

By time, minutes

|    |     |     |      |     |     |     |     |      |     |     |     |     |
|----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|
| b1 | 10% | 45% | 100% | 89% | 2%  | 22% | 63% | 0%   | 0%  | 17% | 4%  | 69% |
| b2 | 0%  | 0%  | 0%   | 0%  | 0%  | 22% | 26% | 0%   | 0%  | 0%  | 0%  | 0%  |
| c1 | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  |
| c2 | 4%  | 43% | 100% | 82% | 2%  | 0%  | 3%  | 0%   | 7%  | 1%  | 29% | 3%  |
| c3 | 2%  | 0%  | 0%   | 0%  | 0%  | 0%  | 3%  | 0%   | 0%  | 0%  | 0%  | 0%  |
| c4 | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  |
| m1 | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  |
| m2 | 7%  | 5%  | 3%   | 3%  | 10% | 7%  | 20% | 0%   | 6%  | 7%  | 10% | 4%  |
| n1 | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 60% | 100% | 40% | 0%  | 0%  | 0%  |
| s1 | 0%  | 44% | 100% | 97% | 7%  | 0%  | 20% | 0%   | 0%  | 0%  | 0%  | 0%  |
| s2 | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  | 0%   | 0%  | 0%  | 0%  | 0%  |
|    | 6   | 12  | 17   | 22  | 28  | 33  | 39  | 44   | 50  | 55  | 60  | 66  |

By events



## Legend

- b1

— focus changed to a different window
- b2

— full-screen mode is disabled
- c1

— webcam is disabled
- c2

— no face in front of camera
- c3

— several faces in front of camera
- c4

— unidentified face in front of camera
- m1

— microphone is muted or low volume
- m2

— conversation or noise in the background
- n1

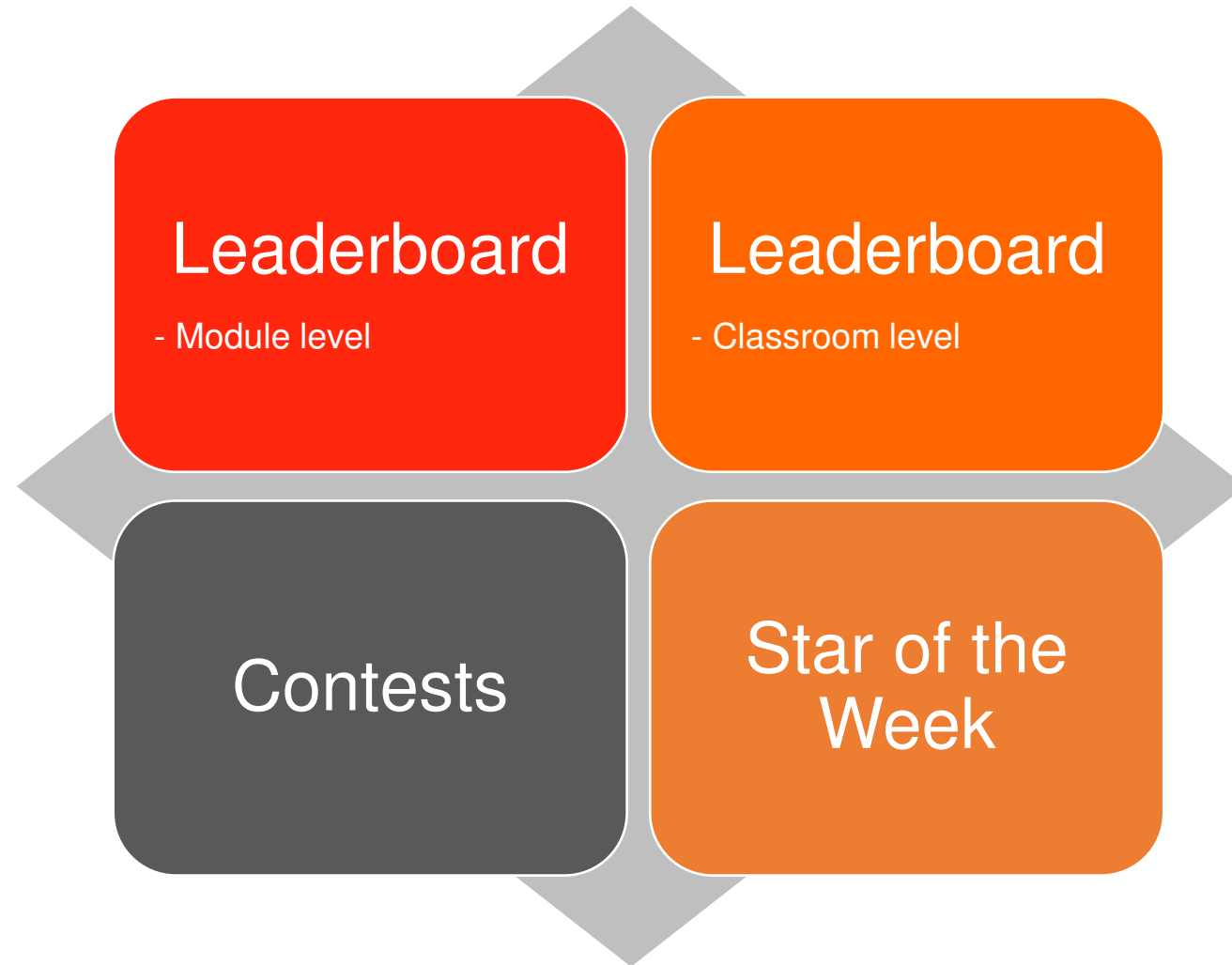
— no network connection
- s1

— no video from screen
- s2

— additional display is connected

# Gamification

# Gamification



# Leaderboards

## My Batch Performance

Overview Leader Board My College

The scores below reflect scores from quiz and assignment submissions

### Course Progress



86.23%

### My Badges and Points

| Rank | Student Name       | Roll No        | Assessment Percentage |
|------|--------------------|----------------|-----------------------|
| 154  | Sri Bharathi Sathi | CAPG1218JA1513 | 81.00%                |

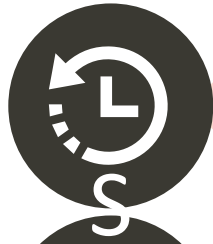
### Batch Rank

Show 10 entries

Search:

| Rank | Student Name       | Roll No        | Assessment Percentage |
|------|--------------------|----------------|-----------------------|
| 1    | P N Venkata Sai    | CAPG1218JA0119 | 98.71%                |
| 2    | Dilpreet Kaur      | CAPG1218JA2484 | 98.34%                |
| 3    | Sajja Swarupa Rani | CAPG1218JA0265 | 97.38%                |

# Contests



20 questions to be solved in 20 minutes



Custom Mix of Complexity

Simple – 30%  
Medium – 30%  
Complex – 40%



Analytical and Application based questions



Camera based remote proctoring

# Code-a-thon

- 2 problem statements
- 40 minutes
- Camera based remote proctoring

## Rubric

| Criteria            | Marks |
|---------------------|-------|
| Compilation         | 10    |
| Practise Test Cases | 20    |
| Hidden Test Cases   | 50    |
| Clean Code          | 20    |

## Black Box test cases

Summary

Practice Test Cases

Eval Test Cases

Test Case Name

Input

Output

pt1

Enter Command Line Input

3

Include Test

NO

YES

Ignore Case

NO

YES

Ignore Whitespace

NO

YES

4

2

5

2

Test Case Name

Input

Output

pt2

Enter Command Line Input

2

Include Test

NO

YES

Ignore Case

NO

YES

Ignore Whitespace

NO

YES

5

3

6

-2

## White Box test cases

```
@Test
public void UTC_03() {

    String []args = {"-12", "asd", "123"};
    String expectedResult = "FIRST ARGUMENT SHOULD BE >0\n";

    SumAndAverageOfInputs.main(args);
    String actualResult = myOutputStream.toString();

    assertEquals(expectedResult, actualResult);
}

@Test
public void UTC_04() {

    String []args = {"2", "asd", "sdf"};
    String expectedResult = "THE SUM IS 0.0\n";
    expectedResult += "THE AVERAGE IS NaN\n";
    expectedResult += "NUMERICAL INPUTS 0\n";
    expectedResult += "NON NUMERICAL INPUTS 2\n";

    SumAndAverageOfInputs.main(args);
    String actualResult = myOutputStream.toString();

    assertEquals(expectedResult, actualResult);
}
```

# Reporting & Insights

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# Student Dashboards

RDBMS - Stage1 Demo : Section



Section Home

Course Book

Activity Stream

My Performance

Discussions

Create Group

My Groups

Progress

50%

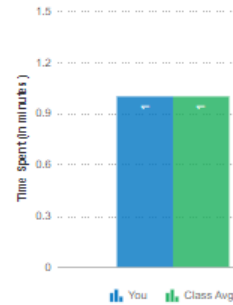
Completed  
Completed

Time Spent  
You have spent  
0 Hr 1 Min  
Class average  
0 Hr 1 Min

12



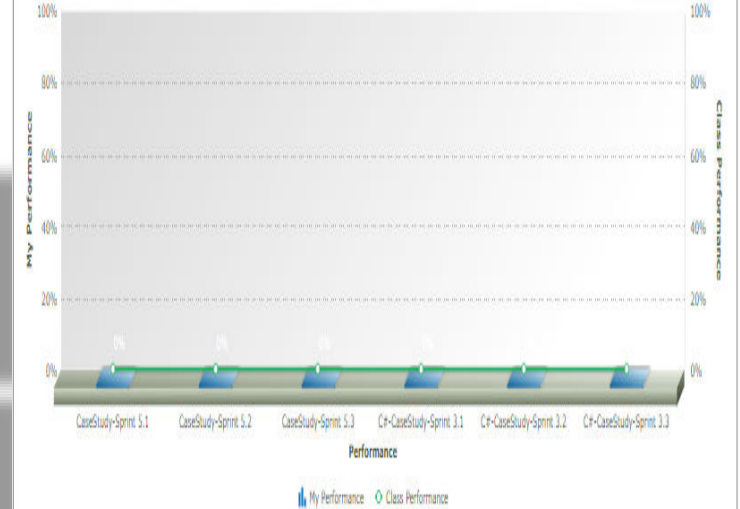
Pending Completed



| Module                | My Progress                   | Class Progress                | My Time Spent | Class Avg Time Spent |
|-----------------------|-------------------------------|-------------------------------|---------------|----------------------|
| CaseStudy-Sprint3     | <div><div></div></div> 33.33% | <div><div></div></div> 33.33% | 0 Hr 0 Min    | 0 Hr 0 Min           |
| C# Case study-Sprint5 | <div><div></div></div> 66.67% | <div><div></div></div> 66.67% | 0 Hr 0 Min    | 0 Hr 0 Min           |

Assessment Performance

My Assessment Performance vs. Class Assessment Performance



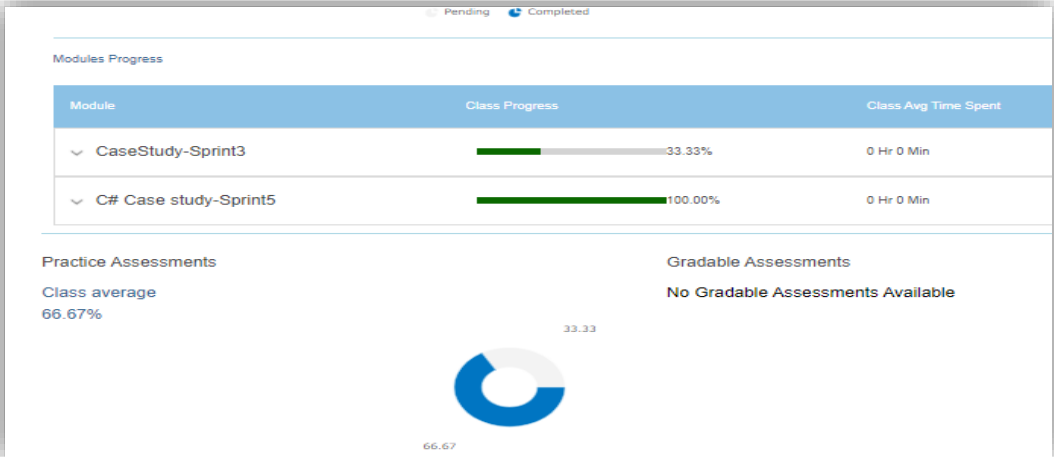
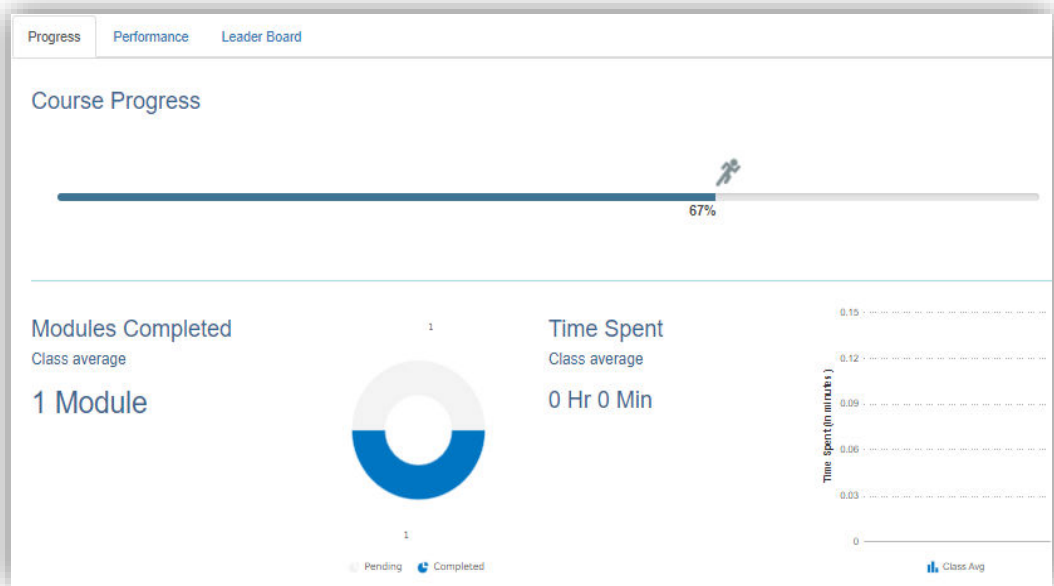
how 10 entries

Search:

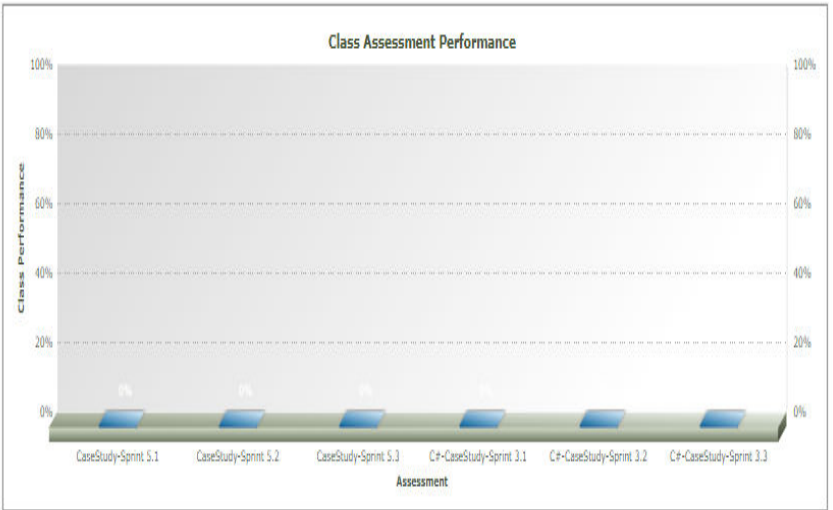
| Assessment Name         | IsGraded | Assessment Status | Score | MaxScore | Performance | Class Performance | Student Graded |
|-------------------------|----------|-------------------|-------|----------|-------------|-------------------|----------------|
| C#-CaseStudy-Sprint 3.1 | No       | INSUBMN           | 0.00  | 100      | 0.00%       | N/A               | 0 / 1          |
| C#-CaseStudy-Sprint 3.2 | No       | Not Attempted     | N/A   | 100      | N/A         | N/A               | 0 / 1          |
| C#-CaseStudy-Sprint 3.3 | No       | Not Attempted     | N/A   | 100      | N/A         | N/A               | 0 / 1          |
| CaseStudy-Sprint 5.1    | No       | INSUBMN           | 0.00  | 100      | 0.00%       | N/A               | 0 / 1          |
| CaseStudy-Sprint 5.2    | No       | INSUBMN           | 0.00  | 100      | 0.00%       | N/A               | 0 / 1          |
| CaseStudy-Sprint 5.3    | No       | INSUBMN           | N/A   | 100      | N/A         | N/A               | 0 / 1          |

# Faculty Dashboards

- Section Home
- Organize Subject Content
- Activity Stream
- Gradebook
- Advance Group Creation
- Class Performance**
- Discussions
- Create Group
- My Groups



## Assessment Performance



Show 10 entries

Search:

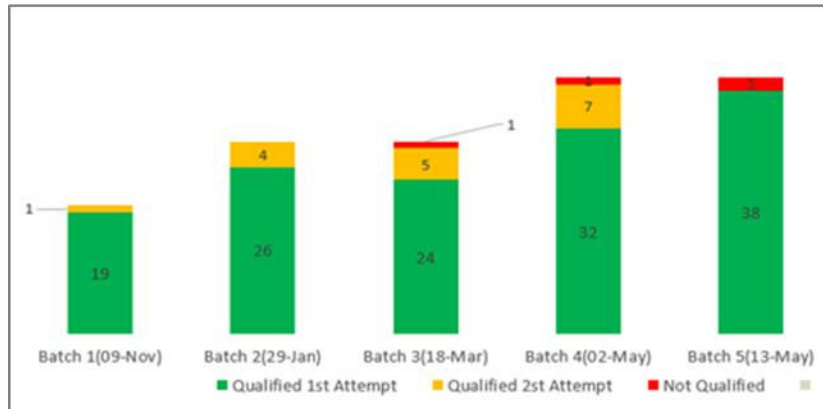
| Assessment Name         | Student Graded | Class Performance |
|-------------------------|----------------|-------------------|
| C#-CaseStudy-Sprint 3.1 | 1 / 1          | 0.00%             |
| C#-CaseStudy-Sprint 3.2 | 0 / 1          | N/A               |
| C#-CaseStudy-Sprint 3.3 | 0 / 1          | N/A               |
| CaseStudy-Sprint 5.1    | 1 / 1          | 0.00%             |
| CaseStudy-Sprint 5.2    | 1 / 1          | 0.00%             |
| CaseStudy-Sprint 5.3    | 1 / 1          | 0.00%             |

Showing 1 to 6 of 6 entries

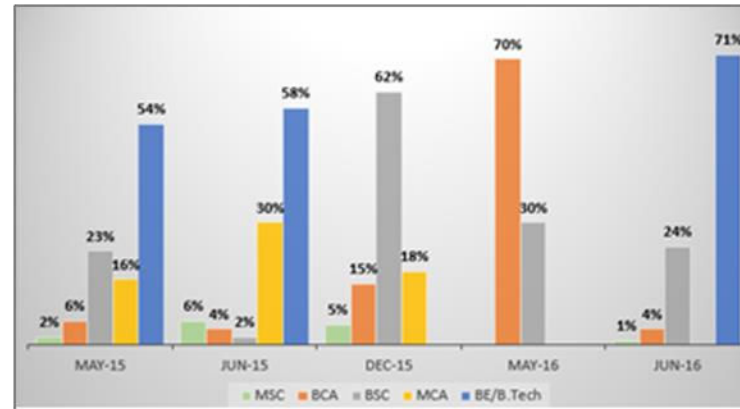
Previous 1 Next

# Custom Reports/Dashboards

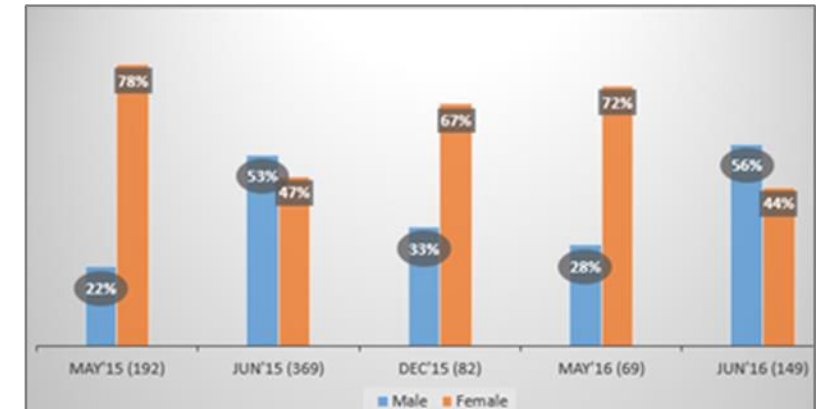
- LMS access to key client representatives to track progress of their learners
- Attendance Reports / Faculty feedback on Learner progress / Performance reports and more
- Additional Reports can be provided based on requirements from clients
- LMS to be integrated into client's IT Systems for seamless data flow



Batch Performance



Education Qualification



Learner Demographics

| Module Name | Campus to Corporate | SPT    | Communication skills 1 | SE&SSAD | Team Building | OOPS   | OOAD & UML | Testing | Basic Unix & Shell Scripting | DBMS (Using Oracle) | Intr. To Client Server Archi | HTML,CSS & JAVA SCRIPT |
|-------------|---------------------|--------|------------------------|---------|---------------|--------|------------|---------|------------------------------|---------------------|------------------------------|------------------------|
| End Date    | 28-May              | 31-May | 01-Jun                 | 03-Jun  | 04-Jun        | 06-Jun | 09-Jun     | 11-Jun  | 16-Jun                       | 16-Jun              | 24-Jun                       | 27-Jun                 |
|             | 4.48                | -      | -                      | -       | 4.95          | -      | -          | -       | -                            | -                   | -                            | -                      |
|             | 4.64                | -      | 4.7                    | -       | 4.81          | -      | -          | -       | -                            | -                   | -                            | -                      |
|             | -                   | 4.26   | -                      | -       | -             | -      | -          | -       | 4.5                          | -                   | -                            | -                      |

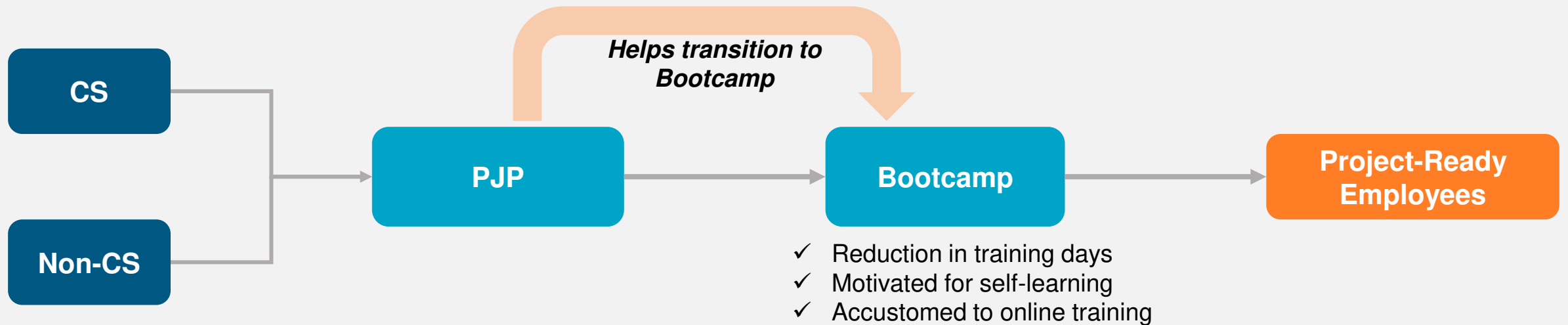
Faculty Feedback

| Range      | 2016-B1 | 2016-B2 | Total | Total | Results |
|------------|---------|---------|-------|-------|---------|
|            | Count   | Count   | Count | %     | Status  |
| 60 & above | 31      | 31      | 62    | 90    | Pass    |
| 50-59      | 4       | 3       | 7     | 10    | Fail    |
| 40-49      |         |         |       |       | Fail    |
| 30-39      |         |         |       |       | Fail    |
| 20-29      |         |         |       |       | Fail    |
|            | 35      | 34      | 69    |       |         |

Assessment Result Dashboard

# Readiness for Bootcamp

# PJP -> Virtual Bootcamp



# Mini Project

## Better Hands-on Skills



- ☐ **Sprint based project development**



## Readiness for Virtual Classroom



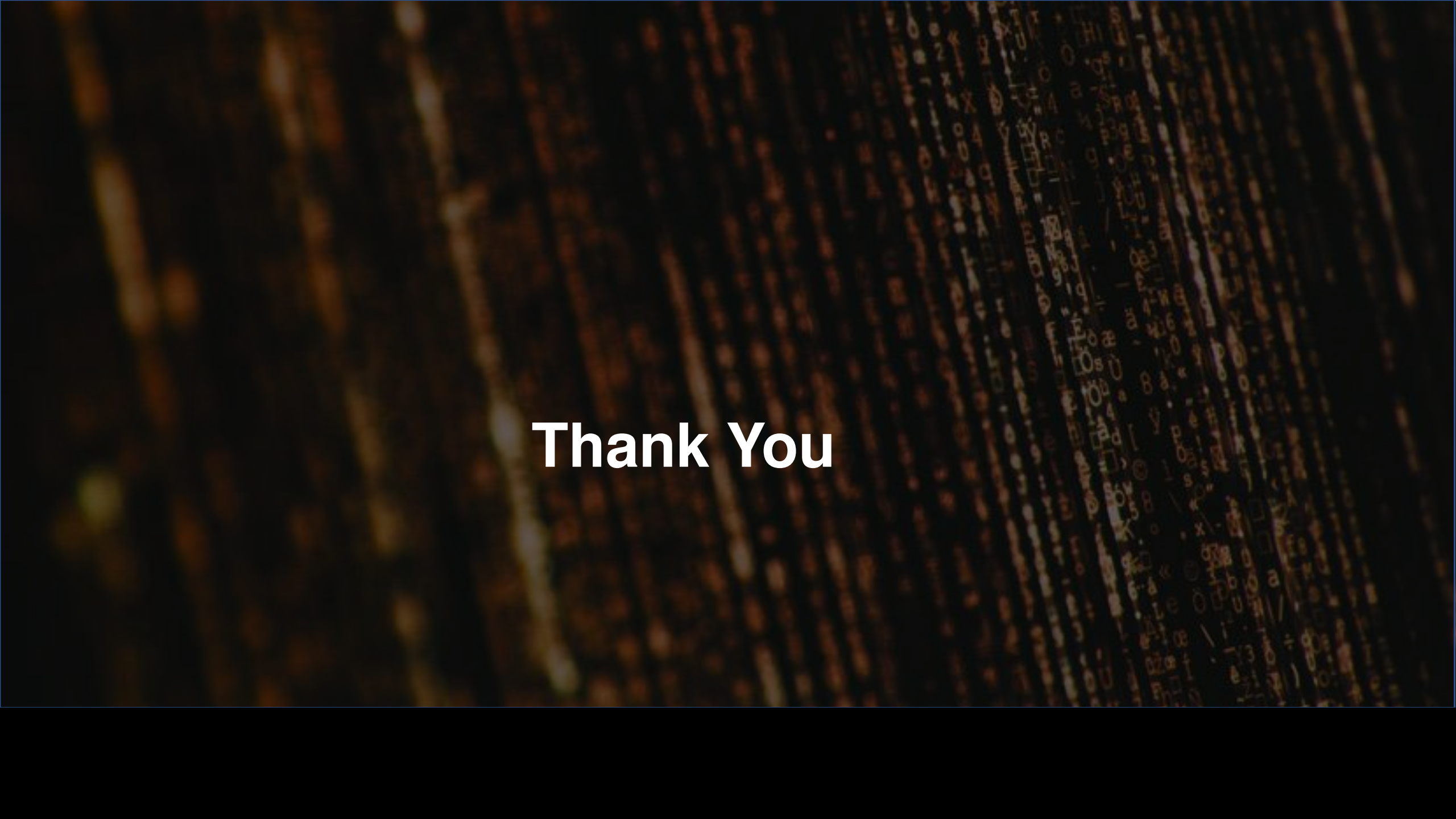
- ☐ Learn to troubleshoot issues and imbibe the culture of self-learning
- ☐ Responsible for individual participation, doubt-clearing
- ☐ Testing the code
- ☐ Discipline – meet deadlines
- ☐ Get used to the culture of remote proctored assessments
- ☐ Team work through ASK forum

# Sample Curriculum

| Foundation<br>(4 Weeks)                                      | Course<br>Duration<br>(Hours) |
|--------------------------------------------------------------|-------------------------------|
| Pre-assessment                                               |                               |
| Software Engineering Concepts and Introduction to case study | 10                            |
| RDBMS Concepts & SQL Using Oracle                            | 30                            |
| <i>Sprint 1 - Case Study</i>                                 | 10                            |
| HTML 5, CSS 3 & JavaScript                                   | 40                            |
| Contest (MCQ)                                                |                               |
| <i>Sprint 2 - Case Study</i>                                 | 10                            |
| Codeathon                                                    |                               |
| Stage 1 Final assessment (MCQ + Coding)                      |                               |
| Total No. of Hours                                           | 100                           |

- ✓ Working on real life Case Study Problem statement
- ✓ Solve at least 25 code based problems as part of each sprint
- ✓ Application based learning for better retention
- ✓ Student is continuously evaluated on all the components

|        |                  |            |               |           |                  |       |
|--------|------------------|------------|---------------|-----------|------------------|-------|
| Stage1 | Assessment       | Case Study | contest1(MCQ) |           | final assessment | Total |
|        | Eval Criteria(%) | 25         | 15            |           | 60               | 100   |
| Stage2 | Assessment       | Case Study | contest2(mcq) | codeathon | final assessment | Total |
|        | Eval Criteria(%) | 40         | 5             | 15        | 40               | 100   |



**Thank You**