# learnjobs
### by The Coders Nation

| Robotic Process Automation | January 17 2022 |
|---|---|
| | Course Handbook |

December, 2021

Dear All,

Warm greetings from the Team at **LearnJobs by The Coders Nation**.

Welcome to the Robotic Process Automation program. We are sure that this program, which has been designed with a great deal of thought and in alignment to Marlabs requirements, will help you in achieving your career objectives.

The next few weeks of your learning is critical and your approach to learning will need to change. Not only will you need to attend the classroom sessions (online), you will also need to apply the concepts learnt in the hands-on classroom activities as well as perform project assignments in your context. This will help you to assimilate the classroom learning in a meaningful way.

The interactive sessions with experienced faculty and the frequency with which assignments and assessments are administered will ensure that learning does not stop with the classroom. The online support – where you will have access to the faculty/subject matter experts (SME's) outside the classroom will help you to overcome any challenges you may face while applying the concepts learnt in your project /assignment context.

It is not just the anticipation of working at a corporate MNC that is exciting, it is the journey towards it as well and hence it is important that you enjoy and participate actively in this program.

Wishing you all the very best in your journey

**Team LearnJobs**

# 1.  Introduction

The RPA (Robotic Process Automation) program has been developed to ensure that the right skills and capabilities are developed for the candidates aspiring to work in Marlabs and to support them in their career path so that they can be productive from the start of their employment.

The sessions in this learning program are aligned to the technical career path for candidates who are aspiring to be RPA professionals at the entry level. The Learning program is spread over a period of 7 weeks for each batch and consists of classroom sessions with project assignments & formal assessments at the end of each module and final assessment and project delivery.

# 2.  Why this program?

The objective of this program is to gain proficiency in RPA using UIPath. This program is designed to address the career needs of candidates in the following competency areas namely

- RPA Basics
- UIPath Basics
- Excel & Databases
- Building Data tables
- Email & pdf automation
- Orchestrator
- RE Framework
- Programming, Debugging & Exception handling
- Automation framework

The program is mapped to the role expectations of RPA professional in the Delivery & Technical career paths in Marlabs and will address the competency requirements for the role in projects. This program can be taken up and completed over a period of 7 weeks giving the participants sufficient time to assimilate and apply the concepts learnt.

## 3. What is in it for me?

This program will enable me to

- Plan and execute current work in the best and most efficient way
- Learn in-depth RPA via efficiently designed sessions, sufficient hand-on, close to real life case studies and projects and prepare overall for the long career through mock interviews.
- Learn through a program which has been designed systematically to play the RPA Role in Corporates

## 4. What does a candidate need to do?

Candidates will be to enrolled into the program by Marlabs.

Once the enrolls into the, the candidate will get linked into a batch and a student account will be created in the LMS. The learning sessions will be facilitated through the LMS for the online sessions, for the offline sessions, candidates will get access to the course content used in the classroom in the LMS. Recording of the sessions will also be available to the candidates for the duration of the program. Assignments, Assessments will be facilitated through the LMS.

An automated mail will be sent to the student with the login details.

The URL for the LMS is: - https://tcn.seeklms.com

The module assignments and assessments will be open to the students for a predetermined time frame as indicated in the published schedule in the LMS. Once the due date is reached for submissions of assignments in the LMS / completion of assessments on the LMS – access will be revoked for those activities. In exceptional circumstances, access will be facilitated on approval by the faculty.

Once the candidate completes the course, passes the curriculum with the score and attendance threshold, the journey with LearnJobs will be complete.

In a situation where the student does not pass, there will be one more opportunity given to the candidate. Prior to opting for this second opportunity, LearnJobs supports the candidate with remedial measures as determined by Marlabs. This could include access to training content and videos for additional time period.

## 5. Methodology

**Online Classroom Sessions –** Classroom sessions are designed to be interactive. Courseware and session recordings will be made available to the candidates in the LMS when the session is completed for future reference.  Concepts will be discussed in the classroom and there will be discussions as well as ample hands-on sessions. candidates need to actively participate to derive maximum benefits

**Support –** Essential aspects of learning includes timely clarification of doubts and discussing implementation-aspects with the faculty/SME's. Students are encouraged to make best use of the support available from the faculty/SME's.

**Courseware –** The courseware consists of the presentations used in the classroom, the recordings of the instructor-led sessions, the reference whitepapers as well as the reading references (books). The solutions to assignments will be discussed during the support activity.

**Preparation -** Sequence of the modules are in a later section in this booklet. You can prepare for the sessions by going through the table of contents and looking up the relevant topics suggested for this course. This will help you to participate actively in the sessions

**In-training Assessments –** Assessments will be conducted periodically. In addition to these assessments, there will be practice tests/quiz for each module. The assessment schedule will be provided by the faculty. Candidates will also work on projects which will contribute to the assessment scores.

**Performance Monitoring –** Your performance will be monitored on a continuous basis. Your participation and performance in the assignments and assessments will count for the overall performance. Performance reports will be available on the LMS.

**Faculty –** Our faculty is one of the most important elements of this program. The faculty for this program has been practitioners for several years and are well versed in the practical aspects of delivery and implementation of concepts and best practices in engagements of all sizes.

## 6. Course Outline

| COURSE TITLE | Robotic Process Automation with UiPath |
|---|---|
| Course Code/Learning Path Code | LP-003 |
| Total No of Sessions – Entire Program | No. of courses: 1<br>No. of Sessions:  29 |
| Course Type | Instructor Led Program |

## 7. Course Description

The RPA with UIPath course that comprises of multiple sessions for (Modules 1-14) leading to capstone project. Details of the Modules are as below.

**Module 0 – General Introduction**

| General Introduction | |
|---|---|
| Kick-Off | Program Goals and expectations |
| Roadmap for the program | How you, as a student will go through is program and what is expected of you. |
| Course Overview and Intent (Core Team) | > Overview and preparation activities<br>> Installation of software & tools |
| LMS Overview | > Overview of the Learning Management System (LMS) |

| Sl No | Course Content | Duration |
|:---:|:---|:---|
| 1 | **Introduction** | **Day 1** |
| | 1.1 Introduction | |
| 2 | **What is RPA** | |
| | 2.1 Do You Need RPA Certification | |
| | 2.2 What is RPA | |
| | 2.3 RPA Benefits | |
| 3 | **UIPath Basics** | **Day 2- Day 6** |
| | 3.1 Installation | |
| | 3.2 Managing Activities | |
| | 3.3 UiPath Studio | |
| | 3.4 User Interface | |
| | 3.5 Sequences | |
| | 3.6 Flow Charts | |
| | 3.7 State machines | |
| | 3.8 Variables | |
| | 3.9 Text Variables | |
| | 3.10 Boolean Variables | |
| | 3.11 Number Variables | |
| | 3.12 Array Variables | |
| | 3.13 Date and Time Variables | |
| | 3.14 Generic Variables6 | |
| | 3.17 Using Arguments | |
| | 3.18 Recorder | |
| | 3.19 Desktop Recorder | |
| | 3.20 Chrome Extension | |
| | 3.22 Ui Elements | |
| | 3.33 Activities | |
| | 3.34 Selectors | |
| | 3.35 Text Recognition Activities | |

| Sl No | Course Content | Duration |
|---|---|---|
| | 3.36 Structured Data | |
| | 3.37 Unstructured Data | |
| | 3.38 For Each Loop | |
| | 3.39 While Loop | |
| | 3.40 If Activity | |
| | 3.41 Switch Activity | |
| | 3.42 Break Activity | |
| | 3.42 Process Mining | |
| 4 | **Excel and Datatables** | **Day 7 - Day 9** |
| | 4.1 Excel Activities | |
| | 4.2 Application Scope | |
| | 4.3 Read Range | |
| | 4.4 Close Workbook | |
| | 4.5 Read & Write Range | |
| | 4.6 Read Row | |
| | 4.7 Append Range | |
| | 4.8 Build Datatable | |
| | 4.9 Add Column | |
| | 4.10 Select Datatable | |
| | 4.11 Filter Datatable | |
| | 4.12 Add Data Row | |
| | 4.13 Add Data Column | |
| | 4.14 Add Data Row | |
| 5 | **4.15 Build Data Table** | |
| | 4.16 Clear Data Table | |
| | 4.17 Generate Data Table | |
| | 4.18 Get Row Item | |
| | 4.19 Join Data Tables | |
| | 4.20 Lookup Data tables | |
| | 4.21 Merge Data Tables | |
| | 4.22 Output Data Tables | |

| Sl No | Course Content | Duration |
|---|---|---|
| 6 | **Email Automation** | **Day 10 - Day 11** |
| | 5.1 Outlook Creation | |
| | 5.2 Outlook Configuration | |
| | 5.3 Read Emails | |
| | 5.4 HTML Creator | |
| | 5.5 Save Attachments | |
| | Data Manipulation | |
| 7 | **PDF Automation** | **Day 12- Day 14** |
| | 6.1 Read PDF | |
| | 6.2 Read PDF with OCR | |
| | 6.3 Extract PDF as Image | |
| | 6.4 Extract PDF Range | |
| | 6.5 Join PDF'f Files | |
| | 6.6 Manage PDF Password | |
| | 6.8 Document Understanding | |
| | 6.9 Taxonomy | |
| | 6.10 Data Extraction | |
| 8 | **Programming** | **Day 15 - Day 18** |
| | 7.1 String | |
| | 7.2 Debug | |
| | 7.3 Comment Out | |
| | 7.4 Comment IN | |
| | 7.5 Write Line | |
| | 7.8 Test Suite & Test Manager | |
| 9 | **Orchestrator** | **Day 19 - Day 22** |
| | 9.1 Introduction | |
| | 9.2 Orchestrator Capabilities: | |
| | 9.3 Provisioning & Folder Overview | |
| | 9.4 Deployment | |
| | 9.5 Assets | |
| | 9.6 Queues | |

| Sl No | Course Content | Duration |
|---|---|---|
| | 9.7 Triggers | |
| | 9.8 Storage overview | |
| | 9.9 UIPath Apps | |
| | 9.10 Overview Apps | |
| | 9.11 Orchestrator Licenses | |
| | 9.12  UIPath Actions | |
| | 9.13 UIPath Centre | |
| | 9.14 Define Orchestrator and its functions | |
| | 9.15 Understand the concept of processes and publishing package | |
| 10 | **Debugging Exceptional Handling** | **Day 23** |
| | 10.1 Use debugging techniques to find errors | |
| | 10.2 Define exception handling and use of different types of exceptions in finding errors | |
| | 10.3 Run and test your automations with default values and reusable code | |
| 11 | **Automation Challenges** | **Day 24-Day 25** |
| | 11.1 Code an automation that interacts with a user | |
| | 11.2 Verify stability of the automation | |
| | 11.3 Catch all errors and handle them in a graceful way by reprocessing, retrying, or letting the user know when an action failed and must be manually handled | |
| | 11.4 Understand the common exceptions thrown in UiPath Studio | |
| 12 | **Project Organization** | **Day 26** |
| | Organize a project in an efficient and understandable way | |

| Sl No | Course Content | Duration |
|---|---|---|
| | Ensure all business requirements from a Process Definition Document are met throughout a project (all use cases stated, all known and unknown exceptions handled, etc.) | |
| | Test and debug each workflow (unit testing) as well as the overall project workflow | |
| 13 | **REFramework** | **Day 27-Day 29** |
| | 13.1 Understand the production level framework, state machines, audit logs, and retry mechanisms | |
| | 13.2 Initialization State | |
| | 13.3 Get Transaction Data | |
| | 13.4 Process Transaction Data | |
| | 33 | |
| | 13.6 Close Applications | |
| | 13.7 Kill Processes | |
| | 13.8 Exception Handling | |
| | 13.9 End to End Implementation with Project Demo | |
| 14 | **Debugging** | **Day 29** |
| | 14.1 Debug File | |
| | 14.2 Step In | |
| | 14.3 Step Out | |
| | 14.4 Step over | |
| | 14.5 BreakPoints | |
| | 14.6 Slow Step | |
| | 14.7 Execution trail | |
| | 14.8 Logs | |

# 8. Assessments

Assessments of the participants in this program will be in multiple stages and will consist of both formative and summative assessments.

Formative assessments will be scheduled during each module and will be evaluated based on

- Hands On Assignments
- Projects

Summative assignments will be based on the assessment scores and will be scheduled for a group of modules or individual modules

Weightage for each of these assessment items are as follows

| Assessment Items | Weightage |
|---|---|
| Timely submission of activities & assignments | 5% |
| Communication - Verbal and Written | 5% |
| Project | 20% |
| Assignments | 20% |
| Timely completion of Assessment/quiz | 5% |
| Assessments/Quiz | 30% |

## 9. Procedure for taking Online Assessments and Assignments

The procedure for taking online assessments and submitting assignments are as follows.

- Logon to the LMS with the username and password provided to you ( URL: <https://tcn..com > )
- Click on the **Assignments Due** Link on the right side of the browser screen
- You will see a list of assignments that are due with the dates.
- Click on the Assignment Title – Depending on the type of assignment, you will be taken to a page where you can upload your documents or take a quiz or an aseessment.
- Once done, click on the submit tab to submit.

## 10. Responsibilities of Students

Student responsibilities/discipline requirements are as follows

- Should be regular and punctual to sessions
- Switch off mobile phones and other electronic gadgets that are not required during sessions
- Participate in the discussions and case studies actively
- Complete assessment, and assignments on time
- Make the best use of support to assimilate learnings

## 11. Reference Books and useful websites

The faculty will suggest the reference books/reading material as applicable for individual modules in this course. You can use these references as supplementary reading material as we progress in this course.

The details of such references and reading material will be updated regularly in the LMS by the instructor

## 12. Frequently Asked Questions

### General

1. **What does this Program cover?**
   Answer: This program covers the RPA curriculum. This course will use UIPath. Curriculum is tuned towards the needs of the corporates.

2. **What is the duration of the Program?**
   Answer: The program is spread over 7 weeks.

3. **Classroom sessions are happening in location x, I am from location Y, can I attend the session online from location x?**
   Answer: No, all offline sessions you must attend in person ONLY. However, no offline sessions are planned for this training

4. **What is the time given to me to complete this program?**
   Answer: Each batch will get a program schedule ahead of time. We expect you to complete this certification program within that schedule. In the event you do not clear the program requirements, further course of action will be determined in consultation with your employer.

5. **I have registered in batch X; can I continue my learning in batch Y?**
   Answer: At this point, once you join batch X, you must complete all sessions, assignments sequentially. However, in exceptional/emergency cases, we might allow attending sessions in other batches. Approval for this would be on a case-to-case basis.

6. **I missed the learning session; how can I complete the program?**
   Answer: Once the sessions start, you can catch up with learning through the recorded sessions. You may discuss with your faculty regarding submission of assignments and assessments

7. **I want to refer to learning content, how can I get access to it?**
   Answer: All learning content is available for you in LMS. On the first day, you will get this handbook and details about this and the process to register/access LMS etc. will be provided to you.

8. **Can I take assessments/assignments without attending instructor led sessions?**

    Answer: We do not recommend this, as there are activities and hands-on, which are very important for learning. Also, there is a weightage given to these activities in your overall grading/performance assessment. If you are unable to attend a particular session due to an emergency, you need to take the online recorded session and work out a timetable with your faculty to take assignments

9. **What is the pass % required?**

    Answer: You must secure at least 75%. The cutoff is set by your employer, Marlabs.

10. **What is the evaluation and grading methodology?**

    Answer: Evaluation is comprehensive and there will be marks allocated for hands-on activities, assignments, as well as timeliness. Details of the weightage are outlined in the section "Assessments". Rubrics will be used for formative assignments assessments as required.


## Assignments & Assessments

1. **How many assignments I need to complete?**

    Answer: We will share a list of assignments with you. Note that all assignments are mandatory to submit.

2. **How do I submit assignments?**

    Answer: Assignments are to be submitted on the LMS. Please refer to the handbook where information and steps regarding this has been provided to you.

3. **How do I appear for assessments?**

    Answer: Assessments are to be submitted on the LMS. The procedure for assessments and assignments are exactly the same. Please refer to the handbook where information and steps regarding this has been provided to you.

## Assessments

1. **What are the prerequisites for taking the Assessments?**
   Answer**:** To be able to take an Assessment, you have to have attended the classroom sessions and completed and submitted the relevant assignments as well as the assessments successfully.

2. **What would be the pattern of the Assessments?**
   Answer: The assessments will consist of a set of MCQ's that could also be based on a case study. The level of difficulty of the questions will be 30% (easy), 40% (moderate) and 30% (difficult)

3. **When and assessments would the assessments be conducted?**
   Answer: The assessments will be conducted in a controlled environment through the learning platform. The duration of each of the assessments is fixed and the submission of the assessments will have to happen within the prescribed time limit. The system will give you warnings to submit when you are nearing your time limit. Please refer to the announcements in the classroom & LMS for the due dates for the assessments.

4. **If I fail the assessment what is the impact?**
   Answer: If you fail the assessment, you can re-appear one more time. If you fail the 2nd time, you will need to go through remedial measures as decided by your employer Marlabs.

5. **I failed the assessment; can I continue my learning process?**
   Answer: Yes, you can continue the process after discussing with your employer, the faculty and LearnJobs on remedial measures

**6. Can I reappear for the assessment later on?**
Answer: You are expected to complete your assessments in the slots provided to you. Each slot will be considered in the no. of attempts provided to you. If you fail the course, you can re-appear for the assessment when it is next scheduled. Remedial action is recommended if you fail the assessment second time in a row (you may not be able to continue with the course if you do not clear the assessment in the <2> attempts that are provided to you). If you are not appearing for an assessment on the scheduled day due to any reason, the corresponding assessment slot will be considered as attempted even though it is a "No show".

**7. What happens if I don't clear the assessment in 3 attempts?**
Answer – You must write and get exceptional approval from Marlabs and both the faculty and LearnJobs for any future attempts. Please note that defaulting/no show for a scheduled assessment will also be considered as an attempt.

**8. I did not come and attend assessments – defaulted assessments twice?**
Answer – Both the scheduled assessments will be counted as attempted. You will have just one and last chance to take the assessment i.e., 3rd attempt. You must write and get exceptional approval from both your employer and LearnJobs for this.

**9. Do I get any benefit from attending assessments in sequential order? Timely completion of assessments/quiz?**
Answer: Yes, we are giving 5% marks for timely completion of assessments, assignments and quiz

## Support & Feedback

1. **I need guidance on certain topics or in assignments, whom can I reach out to?**
   Answer: You can ask your designated mentor to help you. In addition, we have planned support sessions for you by the faculty. Please check the published schedule for dates and time.

2. **I missed the planned session to clarify doubts; can I reach out to the trainer?**
   Answer: Yes, you can discuss doubts and clarification over <meet/skype etc>. Your trainer will provide you with the timeslots and link for such discussions. You can also communicate to the trainers over email and support will be provided over email as well.

3. **How can I provide feedback on the course?**
   Answer: You can provide feedback on each learning session through the LMS portal. Providing feedback for each session is mandatory as it will help attend to the gaps in any in a timely manner. You can escalate any issues to us at ***usha@thecodersnation.com***

4. **If I have issues accessing the Online Learning Management System, what should I do?**
   Answer: If you cannot access the LMS URL, you will need to raise a support request. Please send a request to milan*@codersnation.com* with a summary of your problem in the subject line and details within the body of the mail. If your issue is not solved within 1 working day, escalate the issue to your batch coordinator.