

# Check List 2 — Project Task Tracking

Group R26-IT-126 · Smart Waste Management System · Microsoft Planner plan “R26-IT-126” · exported 2026-10-14

100  
Tasks

99  
Completed

1  
Not started

25  
JAYAWARDHANE K G M S it22213358

19  
WIJESIRI A M it22088482

18  
HEMSARA K D S it22548528

14  
GAMAARIYA C.C it22202772

## Initiating (11)

| #  | Task                                          | Assigned to                     | Status    | Due        | Completed  |
|----|-----------------------------------------------|---------------------------------|-----------|------------|------------|
| 1  | Hardware Component Integration                | GAMAARIYA C.C it22202772        | Completed | 2026-08-08 | 2026-08-27 |
| 2  | Define Project Scope and Expected Outcomes    | HEMSARA K D S it22548528        | Completed | 2026-02-28 | 2026-10-13 |
| 3  | Define Research Problem                       | HEMSARA K D S it22548528        | Completed | 2026-02-24 | 2026-10-13 |
| 4  | Identify ML requirements                      | JAYAWARDHANE K G M S it22213358 | Completed | 2026-02-01 | 2026-08-31 |
| 5  | Identify Required Sensors and IoT Components  | HEMSARA K D S it22548528        | Completed | 2026-02-27 | 2026-10-13 |
| 6  | Identify Research Objectives and Requirements | HEMSARA K D S it22548528        | Completed | 2026-02-25 | 2026-10-13 |
| 7  | Identify possible prediction targets          | JAYAWARDHANE K G M S it22213358 | Completed | 2026-02-21 | 2026-08-31 |
| 8  | Review ML-based waste management research     | JAYAWARDHANE K G M S it22213358 | Completed | 2026-02-07 | 2026-08-31 |
| 9  | Study waste prediction approaches             | JAYAWARDHANE K G M S it22213358 | Completed | 2026-02-06 | 2026-08-31 |
| 10 | Define Mobile Application Objectives          | WIJESIRI A M it22088482         | Completed | 2026-10-14 | 2026-10-14 |
| 11 | Identify Project Scope and Requirements       | WIJESIRI A M it22088482         | Completed | 2026-10-14 | 2026-10-14 |

## Planning (16)

| # | Task                        | Assigned to                     | Status    | Due        | Completed  |
|---|-----------------------------|---------------------------------|-----------|------------|------------|
| 1 | Define ML problem           | JAYAWARDHANE K G M S it22213358 | Completed | 2026-02-22 | 2026-08-31 |
| 2 | Define evaluation metrics   | JAYAWARDHANE K G M S it22213358 | Completed | 2026-03-09 | 2026-08-31 |
| 3 | Define prediction target    | JAYAWARDHANE K G M S it22213358 | Completed | 2026-02-23 | 2026-08-31 |
| 4 | Define testing methodology  | JAYAWARDHANE K G M S it22213358 | Completed | 2026-03-08 | 2026-08-31 |
| 5 | Define training methodology | JAYAWARDHANE K G M S it22213358 | Completed | 2026-08-05 | 2026-08-31 |

|    |                                                           |                                    |           |            |            |
|----|-----------------------------------------------------------|------------------------------------|-----------|------------|------------|
| 6  | Design ESP32 Sensor System Architecture                   | HEMSARA K D S<br>it22548528        | Completed | 2026-03-03 | 2026-10-13 |
| 7  | Design Firebase Database and Data Communication           | HEMSARA K D S<br>it22548528        | Completed | 2026-03-10 | 2026-10-13 |
| 8  | Design ML workflow                                        | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-03-02 | 2026-08-31 |
| 9  | Identify input variables                                  | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-03-01 | 2026-08-31 |
| 10 | Plan Sensor Wiring and GPIO Pin Configuration             | HEMSARA K D S<br>it22548528        | Completed | 2026-03-04 | 2026-10-13 |
| 11 | Plan Web Dashboard and Environmental Monitoring Interface | HEMSARA K D S<br>it22548528        | Completed | 2026-03-17 | 2026-10-13 |
| 12 | Plan model comparison                                     | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-10 | 2026-08-31 |
| 13 | Prepare Project Schedule                                  | GAMAARIYA C.C<br>it22202772        | Completed |            | 2026-08-27 |
| 14 | Design Mobile Component Architecture                      | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 15 | Document Mobile Application Requirements                  | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 16 | Plan Resident and Driver Workflows                        | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |

## Executing (44)

| #  | Task                                                 | Assigned to                        | Status    | Due        | Completed  |
|----|------------------------------------------------------|------------------------------------|-----------|------------|------------|
| 1  | Finalize the iot components                          | —                                  | Completed | 2026-03-01 | 2026-05-13 |
| 2  | Collect historical waste data from Municipal council | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-07-31 | 2026-08-27 |
| 3  | Finalize the 2 components                            | —                                  | Completed | 2026-03-20 | 2026-05-13 |
| 4  | Finalize the 2 components                            | —                                  | Completed | 2026-03-21 | 2026-05-13 |
| 5  | Getting Help to write the methology section          | —                                  | Completed | 2026-02-16 | 2026-05-13 |
| 6  | Getting Help to write the methology section          | —                                  | Completed | 2026-02-17 | 2026-05-13 |
| 7  | Getting Help to write the methology section          | —                                  | Completed | 2026-02-18 | 2026-05-13 |
| 8  | Getting Help to write the methology section          | —                                  | Completed | 2026-02-23 | 2026-05-13 |
| 9  | Getting Help to write the methology section          | —                                  | Completed | 2026-02-24 | 2026-05-13 |
| 10 | Getting Help to writebthe methology section          | —                                  | Completed | 2026-02-19 | 2026-05-13 |
| 11 | Getting Help to writebthe methology section          | —                                  | Completed | 2026-02-20 | 2026-05-13 |
| 12 | Getting Help to writebthe methology section          | —                                  | Completed | 2026-02-21 | 2026-05-13 |

|    |                                                    |                                    |           |            |            |
|----|----------------------------------------------------|------------------------------------|-----------|------------|------------|
| 13 | Getting Help to write the methodology section      | —                                  | Completed | 2026-02-22 | 2026-08-27 |
| 14 | Start Writing the research paper                   | —                                  | Completed | 2026-02-14 | 2026-05-13 |
| 15 | Start Writing the research paper                   | —                                  | Completed | 2026-02-15 | 2026-05-13 |
| 16 | Develop smart bin prototype                        | GAMAARIYA C.C<br>it22202772        | Completed | 2026-06-07 | 2026-08-27 |
| 17 | Test communication between IoT device and firebase | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-29 | 2026-08-28 |
| 18 | Conduct System Testing & Validation                | GAMAARIYA C.C<br>it22202772        | Completed |            | 2026-08-28 |
| 19 | Install waste-level sensors                        | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-09 | 2026-08-27 |
| 20 | Capture waste-level data                           | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-27 | 2026-08-28 |
| 21 | Test sensor accuracy                               | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-28 | 2026-08-28 |
| 22 | Test sensor reliability                            | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-28 | 2026-08-28 |
| 23 | Analyse waste generation trends                    | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-08 | 2026-08-31 |
| 24 | Build and Connect ESP32 Sensor Prototype           | HEMSARA K D S<br>it22548528        | Completed | 2026-08-20 | 2026-10-13 |
| 25 | Clean waste dataset                                | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-04 | 2026-08-27 |
| 26 | Compare ML algorithms                              | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-13 | 2026-08-31 |
| 27 | Develop & Integrate System Components              | GAMAARIYA C.C<br>it22202772        | Completed |            | 2026-08-28 |
| 28 | Develop Smart Waste Management Web Dashboard       | HEMSARA K D S<br>it22548528        | Completed | 2026-08-25 | 2026-10-13 |
| 29 | Generate waste predictions                         | —                                  | Completed | 2026-08-14 | 2026-08-31 |
| 30 | Handle missing values, Remove duplicate records    | —                                  | Completed | 2026-08-08 | 2026-08-31 |
| 31 | Implement IoT data transmission                    | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-29 | 2026-08-28 |
| 32 | Integrate ESP32 with Firebase Realtime Database    | HEMSARA K D S<br>it22548528        | Completed | 2026-08-23 | 2026-10-13 |
| 33 | Integrate ML model with the system                 | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-21 | 2026-08-31 |
| 34 | Organize waste dataset                             | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-03 | 2026-08-27 |
| 35 | Perform feature engineering                        | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-09 | 2026-08-31 |
| 36 | Prepare training dataset, Prepare testing dataset  | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-11 | 2026-08-31 |

|    |                                                   |                                    |           |            |            |
|----|---------------------------------------------------|------------------------------------|-----------|------------|------------|
| 37 | Program Sensors and Collect Real-Time Readings    | HEMSARA K D S<br>it22548528        | Completed | 2026-08-22 | 2026-10-13 |
| 38 | Select best-performing model                      | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-13 | 2026-08-31 |
| 39 | Train multiple ML models                          | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-12 | 2026-08-31 |
| 40 | Develop Resident Pickup Request Workflow          | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 41 | Implement Driver Request Management               | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 42 | Implement Live Vehicle Tracking                   | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 43 | Implement Route Support and Nearest-Truck Updates | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 44 | Integrate IoT Critical-Bin Information            | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |

## Monitoring and controlling (24)

| #  | Task                                               | Assigned to                        | Status    | Due        | Completed  |
|----|----------------------------------------------------|------------------------------------|-----------|------------|------------|
| 1  | Conduct team performance reviews                   | —                                  | Completed | 2026-09-08 | 2026-08-27 |
| 2  | Analyse prediction errors                          | —                                  | Completed | 2026-08-22 | 2026-08-31 |
| 3  | Compare model performance                          | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-24 | 2026-08-31 |
| 4  | Identify and Fix Hardware and Software Errors      | HEMSARA K D S<br>it22548528        | Completed | 2026-08-28 | 2026-10-13 |
| 5  | Monitor Real-Time Firebase Sensor Data             | HEMSARA K D S<br>it22548528        | Completed | 2026-08-28 | 2026-10-13 |
| 6  | Monitor prediction accuracy                        | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-22 | 2026-08-31 |
| 7  | Monitor sensor performance                         | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-24 | 2026-08-28 |
| 8  | Perform regular hardware testing                   | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-28 | 2026-08-28 |
| 9  | Report monthly status                              | —                                  | Completed | 2026-12-08 | 2026-10-13 |
| 10 | Report monthly status                              | —                                  | Completed | 2026-10-08 | 2026-08-27 |
| 11 | Report monthly status                              | —                                  | Completed | 2026-07-08 | 2026-08-27 |
| 12 | Test Sensor Accuracy and Reliability               | HEMSARA K D S<br>it22548528        | Completed | 2026-08-28 | 2026-10-13 |
| 13 | Test Waste Bin Fill-Level and Environmental Alerts | HEMSARA K D S<br>it22548528        | Completed | 2026-08-28 | 2026-10-13 |
| 14 | Validate collected data                            | GAMAARIYA C.C<br>it22202772        | Completed | 2026-08-28 | 2026-08-28 |
| 15 | Validate model predictions                         | JAYAWARDHANE K G M S<br>it22213358 | Completed | 2026-08-23 | 2026-08-31 |
| 16 | Report monthly status                              | —                                  | Completed | 2027-04-08 | 2026-10-14 |
| 17 | Review Thesis Screenshots and Appendix Evidence    | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |
| 18 | Test Live Tracking and Arrival Notifications       | WIJESIRI A M it22088482            | Completed | 2026-10-14 | 2026-10-14 |

|    |                                               |                         |             |            |            |
|----|-----------------------------------------------|-------------------------|-------------|------------|------------|
| 19 | Test Resident and Driver Coordination         | WIJESIRI A M it22088482 | Completed   | 2026-10-14 | 2026-10-14 |
| 20 | Validate IoT Integration and Testing Evidence | WIJESIRI A M it22088482 | Completed   | 2026-10-14 | 2026-10-14 |
| 21 | Verify Authentication and Account Recovery    | WIJESIRI A M it22088482 | Completed   | 2026-10-14 | 2026-10-14 |
| 22 | Verify Test Results and Expected Outcomes     | WIJESIRI A M it22088482 | Completed   | 2026-10-14 | 2026-10-14 |
| 23 | Report monthly status                         | —                       | Not started | 2027-06-08 |            |
| 24 | Report monthly status                         | —                       | Completed   | 2027-05-08 | 2026-10-14 |

## Closing (5)

| # | Task                                             | Assigned to              | Status    | Due        | Completed  |
|---|--------------------------------------------------|--------------------------|-----------|------------|------------|
| 1 | Evaluate Research Results and System Performance | HEMSARA K D S it22548528 | Completed | 2026-08-30 | 2026-10-13 |
| 2 | Perform Final System Testing                     | HEMSARA K D S it22548528 | Completed | 2026-08-30 | 2026-10-13 |
| 3 | Finalise Thesis and Prepare Submission Report    | WIJESIRI A M it22088482  | Completed | 2026-10-14 | 2026-10-14 |
| 4 | Prepare MS Planner Export Report                 | WIJESIRI A M it22088482  | Completed | 2026-10-14 | 2026-10-14 |
| 5 | Review Final Mobile Application Documentation    | WIJESIRI A M it22088482  | Completed | 2026-10-14 | 2026-10-14 |