

	Statement of Work
Santropol Roulant 111 Rue Roy Est, Montréal, QC H2W 1M1	Document detailing a Statement of Work for agreement by McGill University to perform consulting services to Santropol Roulant (111 Rue Roy Est, Montreal QC H2W 1M1)

DATE	SERVICES PERFORMED BY:	SERVICES PERFORMED FOR:
6/14/2024	<a href="#">Moiz Shaikh</a> Jared Arvind Balakrishnan	Béatrice Daudelin, on behalf of Santropol Roulant

## Objectives

This Statement of Work (SoW) is issued pursuant to the consultant services master agreement between Santropol Roulant (“Client”) and McGill University graduate students Moiz Shaikh and Jared-Arvind Balakrishnan (“Contractor”), effective June 1, 2024 (the “agreement”). This SoW is subject to terms and conditions contained in the non-disclosure agreement between the parties and is made a part thereof. Any term not otherwise defined herein shall have the meaning specified in the agreement. In the event of any conflict or inconsistency between the terms of this SoW and the terms of this agreement, the terms of this SoW shall govern and prevail.

This SoW # 001 (hereinafter called the “SoW”), effective as of June 14, 2024, is entered into by and between Contractor and Client, and is subject to the terms and conditions specified below. The exhibit(s) to this SoW, if any, shall be deemed to be a part hereof. In the event of any inconsistencies between the terms of the body of this SoW and the terms of the exhibit(s) hereto, the terms of the body of this SoW shall prevail.

The primary objective of this project is to enhance the operational capabilities and data-driven decision-making processes at Santropol Roulant. This will be achieved through:

1. Developing user-friendly resources to support the launch and effective use of a new volunteer application.
2. Implementing data analytics solutions to provide actionable insights for improving volunteer management and program operations.
3. Optimizing data management infrastructure to ensure efficient and reliable data handling.
4. Providing detailed analytics on customer behaviors to support strategic decision-making for the Meals on Wheels program.


These objectives aim to provide Santropol Roulant with the necessary tools and insights to improve efficiency, volunteer engagement, and service delivery.

## Period of Performance

The period of performance for this Agreement between Client and Contractor shall commence on June 1, 2024, and shall continue in effect until July 25, 2024 unless terminated earlier in accordance with the terms outlined herein. During this period, Contractor shall perform the services as described in the Statement of Work (SoW). Any extension of the period of performance shall be agreed upon in writing by both parties prior to the expiration of the initial term.

## Scope of Work

Contractor shall provide the services and deliverable(s) as follows:

 Describe services and/or deliverables included in this SOW.

The Contractor shall provide comprehensive consulting services to support Santropol Roulant in enhancing their volunteer/Meals on Wheels program through Data Analytics, application support, and user guide development. The scope of work includes the following activities:

1. User Guide Development for Volunteer Application:
  - Objective: Support the launch of a new volunteer application by creating a detailed user guide.
  - Activities:
    - i. Needs Assessment: Conduct meetings with Santropol Roulant and the application developers to understand the full functionality and features of the new volunteer application. Identify key user roles and their requirements.
    - ii. Content Creation: Develop a comprehensive user guide in PDF format that includes:
      - Step-by-Step Instructions: Detailed, clear instructions for using each feature of the application, tailored for different user roles (volunteers, coordinators, staff).
      - Screenshots and Visual Aids: Visual aids such as annotated screenshots, diagrams, and flowcharts to help users navigated the application easily.
      - FAQs: A section addressing common user questions and issues, with clear and concise answers.
      - Troubleshooting Tips: Practical solutions for common technical problems users might encounter.
      - Best Practices: Guidelines for maximizing the efficiency and effectiveness of using the application.
    - iii. Iterative Review and Feedback: Present draft(s) of the user guide to Santropol Roulant staff for feedback. Incorporate feedback into subsequent draft(s) to ensure the guide meets the needs and expectations of all stakeholders.
    - iv. Finalization and Delivery: Ensure the user guide is accessible (e.g., optimized for screen readers), professionally formatted, and easy to distribute. Deliver the final version in PDF format.
2. Development of Business Dashboards for Meals on Wheels Program:
  - Objective: Provide actionable insights through data visualization and analytics to support Santropol Roulant’s operations and decision-making.
  - Activities:
    - i. Data Collection and Integration: Identify all relevant data sources, including Google Sheets, the internal client software, and any other databases used by Santropol Roulant. Collect and integrate this data into a unified dataset.
    - ii. Data Cleaning and Preparation: Clean and preprocess the data to ensure accuracy, consistency, and completeness. Address any data quality issues such as missing values or outliers.
    - iii. Dashboard Design and Development: Design a data-driven dashboard utilizing tools such as Python, SQL, and Looker Studio. Ensure the dashboard provides:
      - Descriptive Analytics: Visual representations of current and historical volunteer activity, such as participation rates, service durations, and task completion metrics.
      - Prescriptive Analytics: Data-driven recommendations for improving volunteer management practices, such as optimal scheduling and engagement strategies.

- **Predictive Analytics (Optional):** Forecasts and predictive models to anticipate future volunteer behavior, identify potential issues, and plan for resource allocation.
  - iv. **Key Metrics and Insights:** Develop dashboard components that address key operational questions, such as:
    - What is the frequency of last-minute cancellations?
    - How long do volunteers typically serve, and when do they generally quit?
    - What is the average number of shifts per program, segmented by task type (e.g. Kitchen vs Deliveries)?
    - What are the demographics associated with the Meals on Wheels program, and how do these demographics correlate with retention rates?
    - Are there seasonal patterns in shift occupancies, and what opportunities do these patterns present?
  - v. **User Training and Documentation:** Conduct a training session for Santropol Roulant staff to ensure they understand how to use the dashboard and interpret the data. Provide detailed documentation that includes a user manual for the dashboard and examples of data interpretation.
3. **Optional: Implementation of an Optimized MySQL Database:**
- **Objective:** Provide an efficient and reliable database solution if the current Airtable and Firebase architecture is inadequate.
  - **Activities:**
    - i. **Assessment:** Conduct a thorough assessment of the current data storage and management solutions to identify limitations, inefficiencies, and areas for improvement.
    - ii. **Database Design:** Design an optimized MySQL database architecture that addresses identified limitations and supports efficient data storage, retrieval, and analysis. Ensure the design supports scalability and future growth.
    - iii. **Implementation and Data Migration:** Implement the MySQL database and develop scripts to migrate existing data from Airtable and Firebase to the new database. Ensure data integrity and minimize downtime during migration.
    - iv. **Integration with Existing Systems:** Integrate the new MySQL database with existing systems and tools used by Santropol Roulant, including the volunteer application and business dashboards.
    - v. **Testing and Validation:** Conduct thorough testing to verify the functionality, performance, and reliability of the new database. Validate that all data has been accurately migrated and that the database supports all required analyses.
    - vi. **Maintenance and Support:** Provide guidelines for ongoing database maintenance, including backup procedures, performance monitoring, and troubleshooting common issues. Offer support for the initial period after implementation to ensure smooth operation.
4. **Optional: Development of Sous-Chef Customer Analysis Dashboard:**
- **Objective:** Provide detailed analytics on the customers of the Meals on Wheels program using the Sous-Chef software.
  - **Activities:**
    - i. **Data Extraction:** Extract relevant customer data from Sous-Chef. Ensure the data is properly formatted and cleansed for analysis.
    - ii. **Dashboard Design and Development:** Design and develop a business dashboard that provides comprehensive insights into customer behaviors and trends. Include metrics such as:
      - Frequency and patterns of meal orders, including peak times and most requested meals.
      - Customer demographics and preferences, highlighting key segments and their behaviors.
      - Feedback and satisfaction ratings, identifying areas for improvement.
      - Correlation between customer engagement and program outcomes, such as retention rates and donation levels.
    - iii. **User Training and Documentation:** Conduct training sessions for Santropol Roulant staff on how to use the dashboard and interpret the data. Provide detailed documentation, including a user manual and examples of data analysis.

## Deliverable Materials



*If this is an SOW for deliverable work product, describe deliverables here. If this is an SOW for services that do not include specific deliverables, you might want to include a statement such as "There are no formal deliverables or work products defined in association with these services."*

The Deliverable Materials expected to be furnished by Contractor to Client at the end of the Period of Performance will consist of the following:

- 1. **Onboarding User Manual:**
  - A fully-developed, all-encompassing PDF-format user manual that will enable:
    - The coordinators and staff members of Client.
    - Volunteers in Santropol Roulant.
  - The user manual shall include:
    - **Detailed Instructions:** Step-by-step instructions for using each feature of the volunteer application.
    - **Visual Aids:** Annotated screenshots, diagrams, and flowcharts to guides users through the application.
    - **FAQs:** A section addressing common user questions and issues.
    - **Best Practices:** Guidelines for maximizing the efficiency and effectiveness of using the application.
- 2. **Business Dashboards for the Meals on Wheels Volunteering Program:**
  - A data-driven dashboard (slated to be developed via Python, SQL and Looker Studio) that will offer:
    - **Descriptive Analytics:** Visual representations of current and historical volunteer activity.
    - **Prescriptive Analytics (Optional):** Data-driven recommendations for improving volunteer management practices.
    - **Predictive Analytics (Optional):** Forecasts and predictive models for future volunteer behavior.
- 3. **(Optional) Optimized MySQL Database:**
  - If the current Airtable and Firebase based solution architecture is untenable to Client, Contractor shall implement an optimized MySQL database, ensuring:
    - Operating efficiency
    - Uptime of over 99.5%
    - Comparable or improved analysis quality compared to the current solution architecture.
- 4. **(Optional) Sous-Chef and Customer Analysis:**
  - A business dashboard detailing Client's customers and associated behaviors, provided there is sufficient time and resources during the project.

## Timeline

The following timeline outlines the project schedule, including key milestones and deadlines, from June 15, 2024, to July 19, 2024. Each activity is associated with its respective use case. The timeline focuses on core tasks to ensure all essential deliverables are completed effectively:

### Week 1 (June 15 - June 21)

- June 15-16:
  - Needs Assessment (Use Case 1 & 2): Gather detailed requirements for the volunteer application and data infrastructure.
- June 17-19:
  - User Guide Development (Use Case 1): Start drafting the user guide for the volunteer application.
  - Data Collection and Integration (Use Case 2): Begin collecting and integrating existing data from various sources.
- June 20-21:
  - Dashboard Design (Use Case 2): Initial design of the business dashboard for the Meals on Wheels program.
  - Review and Feedback (Use Case 1 & 2): Present initial drafts of the user guide and dashboard design to Santropol Roulant for feedback.

### Week 2 (June 22 - June 28)

- June 22-24:
  - User Guide Development (Use Case 1): Incorporate feedback and continue developing the user guide.
  - Data Cleaning and Preparation (Use Case 2): Clean and preprocess the collected data.
- June 25-26:
  - Dashboard Development (Use Case 2): Continue developing the business dashboard, focusing on descriptive and prescriptive analytics.
  - Technical Setup (Use Case 2): Set up necessary technical infrastructure.
- June 27-28:
  - Review and Feedback (Use Case 1 & 2): Conduct a review session with Santropol Roulant to gather feedback on the user guide and dashboard progress.

### Week 3 (June 29 - July 5)

- June 29 - July 1:
  - User Guide Finalization (Use Case 1): Finalize the user guide based on the feedback received.
  - Dashboard Development (Use Case 2): Continue developing the business dashboard, integrating more advanced analytics if feasible.
- July 2-3:

- Testing and Validation (Use Case 2): Test the functionalities of the dashboard to ensure data accuracy and system performance.
  - Integration with Existing Systems (Use Case 2): Ensure the new solutions are integrated with existing systems used by Santropol Roulant.
- July 4-5:
  - Review and Feedback (Use Case 1 & 2): Present the near-final versions of the user guide and dashboard to Santropol Roulant for final feedback.

#### Week 4 (July 6 - July 12)

- July 6-8:
  - Final Revisions (Use Case 1 & 2): Make final revisions to the user guide and dashboard based on the latest feedback.
  - Data Analysis and Visualization (Use Case 2): Enhance the dashboard with additional data visualizations and insights.
- July 9-10:
  - User Training Preparation (Use Case 1 & 2): Prepare training materials and documentation for Santropol Roulant staff.
- July 11-12:
  - User Training (Use Case 1 & 2): Conduct training sessions for Santropol Roulant staff on using the new dashboard and understanding the user guide.

#### Week 5 (July 13 - July 19)

- July 13-15:
  - Final Testing and Validation (Use Case 1 & 2): Perform final testing and validation to ensure all solutions are working as intended and meet the project requirements.
  - Documentation (Use Case 1 & 2): Finalize all project documentation, including the user guide, dashboard user manual, and any technical documentation.
- July 16-17:
  - Final Presentation Preparation (Use Case 1 & 2): Prepare for the final presentation to Santropol Roulant, summarizing the project outcomes, key findings, and recommendations.
- July 18-19:
  - Final Review (Use Case 1 & 2): Conduct a final review session with Santropol Roulant to ensure all deliverables meet expectations and gather final feedback.

## Contractor: Roles and Responsibilities



*Define contractor responsibilities.*

The Contractor, comprising a team of two graduate students from McGill University, shall be responsible as per the following roles and responsibilities:

1. Jared-Arvind Balakrishnan
  - Role: Software Developer
  - Responsibilities:
    - i. Develop a comprehensive dashboard offering exhaustive analytics, including descriptive, prescriptive and if possible, predictive analyses, to evaluate and enhance the strength of the Meals on Wheels volunteering program offered by Client to be used in Client's annual fundraising efforts.
    - ii. Contribute to the development of a detailed user guide to facilitate onboarding for Client and prospective volunteers and other end-users of the product.
    - iii. Assist the Business Developer in performing any due diligence on the technical aspects of the project(including but not limited to the choice of technology stack, data visualizations) to ensure smooth and efficient product development.
    - iv. Optional: Implement and Optimize a MySQL database to support a fully open-source dashboard capable of providing the same functionality as the primary dashboard.
2. Moiz Shaikh
  - Role: Business Developer/Project Manager
  - Responsibilities:
    - i. Oversee any and all project management activities, ensuring that project timelines, milestones and deliverables are met as per the schedule agreed between Client and Contractor.
    - ii. Liaise between Client and Software Developer to ensure clear communication and understanding of project requirements and objectives.

- iii. Provide guidance and support to the software development process, ensuring alignment with Client's expectations and objectives.
- iv. Aid the Software Developer in any necessary areas to ensure the successful completion of the project, including providing support with technical aspects, data analysis, and integration tasks.
- v. Optional: Develop detailed analytics focusing on the beneficiaries and regular customers of Client.
- vi. Optional: Supervise the development of the optional developer objectives and see through product development from inception to launch.

#### Joint-Decision Making

Both the Software Developer and the Project Manager shall be granted the authority to make product decisions, provided that such decisions are agreed upon by both parties, and subject to approval from Client through the use of detailed user research interviews (hereinafter called "UX Research") and user acceptance testing (hereinafter called "UAT") processes.

This includes but is not limited to decisions related to the design, development, implementation and final delivery of any Client-facing products.

The Contractor shall fulfill their obligations, as outlined above, ensuring the development and delivery of quality

## Client: Roles and Responsibilities



*Define client responsibilities.*

The Client (Santropol Roulant, represented by Béatrice Daudelin, Manager for Meals-on-Wheels) shall be responsible for the following:

- Serve as the final authority on any deliverables presented by Contractor and ensure that they are in line with Client's expectations and standards for launch.
- Guide Contractor towards the most acceptable solution by offering constructive and timely feedback for deliverables submitted by Contractor.
- Provide Contractor with any resources that are required for their services and communicate clearly in the event something is not available or possible due to extenuating circumstances. As previously noted, two business days of no response to any deliveries by Contractor is acceptable.
- Participate in user research and acceptance testing interview with the Contractor to facilitate the unimpeded development of solutions by the Contractor.
- Liaise with external technological partners (such as FNJR and the developers of Sous-Chef) to ensure that Contractors have the right level of access to the existing technological and data management infrastructure vital to ensuring the delivery of Deliverable Materials.

## Completion Criteria

Contractor shall be deemed to have fulfilled its obligations under this Agreement upon the occurrence of any of the following events:

- Contractor successfully completes the activities specified in this Statement of Work (SOW), including the delivery to Client of the materials enumerated in the section entitled "Deliverable Materials," and Client accepts such activities and materials without unreasonable objections. In the absence of any response from Client within two (2) business days following the delivery of the deliverables by Contractor, such deliverables shall be deemed accepted by Client.
- Either the Contractor or the Client exercises their right to terminate the services or deliverables not yet provided, upon giving twenty (20) business days' advance written notice to the other party.

## Assumptions and Constraints



List any assumptions that are specific to this project.

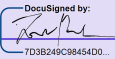


1. **Access to Resources:** It is assumed that Santropol Roulant will provide timely access to all necessary resources, including data, software tools, and personnel, to support the project activities.
2. **Data Availability:** It is assumed that all relevant data required for the development of dashboards and analytics will be available and accessible in a usable format.
3. **Stakeholder Engagement:** It is assumed that key stakeholders from Santropol Roulant will be available for regular meetings, feedback sessions, and reviews to ensure alignment and address any issues promptly.
4. **Timely Feedback:** It is assumed that Santropol Roulant will provide timely feedback on deliverables and drafts to ensure the project stays on schedule.
5. **Limited Support from FNJR:** Although FNJR has shared some resources with Santropol Roulant, they will not be available to provide direct support for the project as the contract with them has concluded.
6. **Time Frame:** The project must be completed within the specified period of performance, from June 1, 2024, to July 25, 2024, which may limit the scope of work and depth of analysis that can be conducted.
7. **Resource Availability:** Limited availability of key stakeholders or technical resources may impact the project timeline and deliverables.
8. **Business Intelligence Tool Options:** The options for the Business Intelligence tool are limited to free tools, which may affect the functionality and features available for the dashboards.
9. **Scope Changes:** Any significant changes to the project scope or objectives during the period of performance may require additional time and resources, potentially impacting the completion timeline and deliverables.
10. **Priority of Optional Tasks:** Tasks marked as optional are not a priority and will only be completed if time and other resources permit.

## Project Change Control Procedure

The following process will be followed if a change to this SOW is required:

- A project change request (PCR) will be the vehicle for communicating change. The PCR must describe the change, the rationale for the change, and the effect the change will have on the project.
- The designated project manager of the requesting party (contractor or client) will review the proposed change and determine whether to submit the request to the other party.
- Both project managers will review the proposed change and approve it for further investigation or reject it. Contractor and client will mutually agree upon any charges for such investigation, if any. If the investigation is authorized, the client project managers will sign the PCR, which will constitute approval for the investigation charges. Contractor will invoice Client for any such charges. The investigation will determine the effect that the implementation of the PCR will have on SOW price, schedule and other terms and conditions of the agreement.
- Upon completion of the investigation, both parties will review the impact of the proposed change and, if mutually agreed, a change authorization will be executed.
- A written change authorization and/or PCR must be signed by both parties to authorize implementation of the investigated changes.

IN WITNESS WHEREOF, the parties hereto have caused this SOW to be effective as of the day, month and year first written above.

	CONTRACTOR			CLIENT
Name:	<u>Jared Arvind</u> Balakrishnan		Name:	<u>Béatrice Daudelin</u>
Signature:	<div>DocuSigned by:  7D3B249C98454D0...</div>		Signature:	<div>DocuSigned by:  96FB34872B1540B...</div>
Title:	Software Developer		Title:	Manager for Meals-on-Wheels, Santropol Roulant
Name:	Moiz Shaikh			
Signature:	<div>DocuSigned by:  4A0F9E996864EE</div>			
Title:	Business Developer/Project Manager			