**Solution for Task 1**: **Basic Lead Capture and Scoring**

1**. Lead Scoring System Design**

Each lead form submission is scored based on the following criteria:

Criteria Options Points

|  |  |  |
| --- | --- | --- |
| Company Size | 1-50 employees | 10 |
|  | 51-200 employees | 20 |
|  | 201-1000 employees | 30 |
|  | 1000+ employees | 40 |
| Annual Budget | Less than $10,000 | 10 |
|  | $10,000 - $50,000 | 20 |
|  | $50,001 - $100,000 | 30 |
|  | More than $100,000 | 40 |
| Industry | Technology | 20 |
|  | Finance | 15 |
|  | Healthcare | 20 |
|  | Retail | 10 |
|  | Other | 5 |
| Urgency of Need | Immediate (within 1 month) | 40 |
|  | Short-term (1-3 months) | 30 |
|  | Medium-term (3-6 months) | 20 |
|  | Long-term (6+ months) | 10 |

**Scoring Logic**: Total score is the sum of points assigned based on form responses.

**Threshold:**

* Leads scoring 70 or higher are classified as high-priority and will receive a welcome email.
* Leads scoring below 70 are classified as low-priority and added to a nurturing campaign sheet.

**2. Zap Workflow Design**

Zap Components:

**Trigger:** New form submission in Google Forms.

**Actions:**

1. **Calculate Lead Score:** Using a Zapier Code Step (JavaScript or Python code).
2. **Add to Google Sheets:** Store lead details along with the calculated score.
3. **Conditional Path:**

* If score ≥ 70:

Send a welcome email via Gmail.

Add the lead to a "High-Priority Leads" Google Sheets spreadsheet.

If score < 70:

Add the lead to a "Nurturing Campaign" Google Sheets spreadsheet.

**3. Steps to Implement in Zapier**

1. **Trigger**:

* **App**: Google Forms
* **Event**: New Form Response

1. **Action**:

* App: Code by Zapier
* Event: Run JavaScript
* Code Sample:

const scoreMap = {

"company\_size": {"1-50 employees": 10, "51-200 employees": 20, "201-1000 employees": 30, "1000+ employees": 40},

"budget": {"Less than $10,000": 10, "$10,000 - $50,000": 20, "$50,001 - $100,000": 30, "More than $100,000": 40},

"industry": {"Technology": 20, "Finance": 15, "Healthcare": 20, "Retail": 10, "Other": 5},

"urgency": {"Immediate (within 1 month)": 40, "Short-term (1-3 months)": 30, "Medium-term (3-6 months)": 20,

"Long-term (6+ months)": 10}

};

const input = inputData; // form the input

let totalScore = 0;

totalScore += scoreMap.company\_size[input.company\_size];

totalScore += scoreMap.budget[input.budget];

totalScore += scoreMap.industry[input.industry];

totalScore += scoreMap.urgency[input.urgency];

return { score: totalScore };

1. **Action:**

* **App**: Google Sheets
* **Event**: Create Row
* Add the lead’s details and the calculated score.

1. **Conditional Paths:**

* Path 1 (Score ≥ 70):
* Action: Gmail → Send Welcome Email.
* Action: Add to "High-Priority Leads" sheet.
* Path 2 (Score < 70):
* Action: Add to "Nurturing Campaign" sheet.

**Deliverables**

**Screenshot of the Zap:** Show the setup for each step and conditional paths.

**Brief Explanation of Workflow**:

When a lead submits the form, Zapier triggers the workflow, calculates a lead score, and classifies the lead based on their score.

High-priority leads receive a welcome email and are added to a high-priority leads sheet.

Low-priority leads are logged for nurturing campaigns.

This solution ensures automation of lead capture, scoring, and action-taking, optimizing TechNova's lead management process.

**Solution for Task 2: Handling Edge Cases**

**Updated Workflow Design**

We will update the Zap workflow to address the following edge cases:

**1. Handling Incomplete Data**

**Approach:**

* Add a data validation step in the workflow.
* Use a **Filter by Zapier** step to check if mandatory fields (e.g., company size, budget, industry) are filled. If any field is incomplete, the lead is redirected to a separate Google Sheets spreadsheet for follow-up.
* Send an alert email to the sales team for manual intervention.

**Zap Steps:**

1. **Trigger**: New Form Submission (Google Forms).
2. **Filter**:
   * App: Filter by Zapier.
   * Condition: Ensure all mandatory fields (e.g., company size, budget, industry) are not empty.
   * Path:
     + If all required fields are present, continue the workflow.
     + If fields are missing, add the lead to an "Incomplete Leads" Google Sheet and send an alert email.

**2. Ensuring High-Value Leads Are Properly Managed**

**Approach:**

* Add a separate scoring condition for "high-value leads" (e.g., those with large budgets or high urgency). High-value leads trigger a priority notification to the sales team.
* Use a **Path by Zapier** step:
  + For leads with a score above 90, notify the sales team via Slack or email.
  + Add these leads to a dedicated high-priority spreadsheet for immediate action.

**Zap Steps:**

1. **Trigger**: New Form Submission.
2. **Code Step**: Calculate lead score.
3. **Path**:
   * **Path A**: For leads with a score ≥ 90:
     + Action: Notify the sales team (e.g., via Slack or email).
     + Action: Add to "High-Value Leads" Google Sheet.
   * **Path B**: For other leads, proceed with the normal workflow.

**3. Accommodating Different Time Zones**

**Approach:**

* Include a "time zone" field in the form to capture the lead’s location or time zone.
* Automatically schedule follow-ups or emails at optimal times based on the lead’s time zone using tools like **Delay by Zapier**.
* Add a dynamic scheduling step to ensure communications are sent during the lead's working hours.

**Zap Steps:**

1. **Trigger**: New Form Submission.
2. **Action**: Parse the time zone field and calculate the appropriate time for follow-up.
3. **Action**: Use "Delay by Zapier" to schedule email notifications or sales follow-ups during the lead’s working hours.

**Deliverables**

**Screenshot of Updated Zap**

* The Zap will include:
  1. **Trigger**: New Form Submission.
  2. **Filter by Zapier**: Check for incomplete data.
  3. **Code Step**: Calculate lead score.
  4. **Paths**:
     + **Path A**: High-value leads (score ≥ 90).
     + **Path B**: Other leads.
  5. **Action for Incomplete Data**: Add to "Incomplete Leads" Google Sheet and notify the sales team.
  6. **Action for High-Value Leads**: Notify the sales team and add to "High-Value Leads" Google Sheet.
  7. **Delay by Zapier**: Schedule follow-ups based on time zones.

**Explanation of Approach**

1. **Handling Incomplete Data**:
   * Leads with incomplete information are flagged.
   * These leads are stored separately for follow-up, ensuring no potential customer is ignored.
   * The sales team is alerted for manual intervention.
2. **Ensuring High-Value Leads Are Properly Managed**:
   * High-value leads are identified based on scoring logic and receive immediate attention via notifications.
   * This reduces the risk of losing important opportunities.
3. **Accommodating Different Time Zones**:
   * Follow-ups and emails are scheduled according to the lead’s local time zone, improving engagement rates and customer experience.

This revised workflow ensures lead data quality, prioritizes high-value leads, and accounts for time zone differences, enhancing TechNova's lead management process

**Solution for Task 3: Scaling and Advanced Implementation**

**Enhanced Workflow Overview**

To scale the lead management process, we enhance the existing workflow with the following new features:

1. **Distributing Leads Among Sales Reps:**
   * Use a "Round Robin" logic in Zapier to assign leads evenly to sales reps.
   * Add an "Assigned Sales Rep" column in the Google Sheet to record the assigned representative's name.
2. **Keyword Extraction for Lead Categorization:**
   * Use Zapier’s **Formatter by Zapier** to extract keywords from a “Comments” field in the form submission.
   * These keywords are used to categorize leads, e.g., Technology, Finance.
3. **Lead Follow-Up System with Google Calendar:**
   * Automatically schedule follow-up reminders for assigned sales reps using Google Calendar.

**Workflow Steps in Zapier**

1. **Trigger**: New Form Submission
   * Trigger when a lead submission is received via Google Forms.
2. **Filter**: Validate Mandatory Fields
   * Use a **Filter by Zapier** step to ensure all required fields are completed. Incomplete submissions are redirected to an "Incomplete Leads" spreadsheet for follow-up.
3. **Action**: Calculate Lead Score
   * Use a **Code by Zapier** step to calculate the lead score based on the submitted data.
4. **Action**: Assign Sales Rep (Round Robin)
   * Use a Google Sheet to track assigned sales reps.
   * Implement round-robin logic using Zapier’s storage or a custom "counter" field in the sheet to distribute leads evenly.
5. **Action**: Extract Keywords for Categorization
   * Use **Formatter by Zapier > Text** to extract keywords from the “Comments” field.
   * Append the category to the Google Sheet.
6. **Action**: Add Lead to Spreadsheet
   * Add the lead’s details (including score, assigned rep, and category) to the main Google Sheet.
7. **Action**: Schedule Follow-Up in Google Calendar
   * Create an event in Google Calendar for the assigned sales rep.
   * Include lead details in the event description and set a reminder.
8. **Action for High-Value Leads**:
   * Notify the sales team via Slack or email for immediate attention.

**Implementation Details**

**1. Distributing Leads Among Sales Reps**

* Create a column in the Google Sheet, Assigned Sales Rep.
* Maintain a counter in a hidden Google Sheet or Zapier's internal storage to keep track of the last-assigned rep.
* Use the counter to determine the next sales rep in the round-robin rotation.

**2. Keyword Extraction for Lead Categorization**

* Use **Formatter by Zapier > Text** to extract meaningful keywords based on a predefined list of terms (e.g., Technology, Finance).
* The extracted keywords are used to classify leads into categories.

**3. Scheduling Follow-Ups in Google Calendar**

* Create a Google Calendar event for the assigned sales rep with:
  + Event Title: Lead Follow-Up - [Lead Name]
  + Event Description: Include lead details such as company size, urgency, and score.
  + Reminder: Set the reminder 24 hours before the event.

**Deliverables**

**1. Screenshot of Enhanced Zap**

* The Zap includes the following steps:
  + **Trigger**: New Form Submission.
  + **Filter**: Validate mandatory fields.
  + **Code Step**: Calculate lead score.
  + **Action**: Assign a sales rep (round-robin logic).
  + **Action**: Extract keywords from the “Comments” field.
  + **Action**: Add lead data to the Google Sheet.
  + **Action**: Schedule a follow-up in Google Calendar.
  + **Action for High-Value Leads**: Notify the sales team via Slack.

**2. Explanation of Each New Feature**

* **Lead Distribution**: Sales reps are evenly assigned leads to ensure a balanced workload and quicker responses.
* **Keyword Extraction**: Provides basic text analysis for categorizing leads based on industry-related keywords.
* **Follow-Up System**: Ensures no lead is forgotten by automating the creation of follow-up events for reps.

**Assumptions and Limitations**

1. **Assumptions**:
   * Sales reps’ information (names and emails) is stored in a Google Sheet.
   * Keywords for categorization are predefined and static.
   * Google Calendar events are sufficient for follow-ups (no additional CRM integration).
2. **Limitations**:
   * Round-robin logic may require manual adjustment if reps leave or join the team.
   * Keyword extraction is limited to basic text matching and may not handle complex text analysis.
   * Dependence on Zapier's limits for multi-step Zaps in free or basic plans.

**Video Explanation:** Please check the below link for video Explanation.

https://drive.google.com/drive/u/0/folders/1DXTpUI4EpThFrClLCz5SHelDuzROQz5l