Analysis of Telephone Surveys

The API /virtualbot/extract_from_audio is an essential tool for companies conducting telephone surveys, as it allows for the automatic transcription and analysis of respondents' answers. By extracting key data such as opinions, specific responses, and the sentiment of the respondent, companies can optimize their market studies, reducing costs and time while gaining deeper and more accurate insights.

Usage:
- Automatic transcription of responses provided by respondents during telephone calls.
- Analysis of opinions and sentiments, identifying emotions and attitudes expressed towards products or services.
- Extraction of specific answers to particular survey questions.
- Generation of reports and summaries of the conducted surveys.

Benefits:
- Reduction of costs and time in conducting and analyzing market studies.
- Greater accuracy in capturing and analyzing data, eliminating human errors in transcription.
- Deep insights into customer perceptions and needs.
- Automation of processes, allowing staff to focus on strategic and higher-value tasks.

Operation of the API /virtualbot/extract_from_audio

Endpoint: POST /virtualbot/extract_from_audio

Input Parameters:
- Audio file: Recordings of telephone surveys in MP3 format or other standard formats.
- Instructions or Requirements: Specifications on what to extract or analyze from the audio, such as transcriptions, responses to specific questions, sentiment analysis, etc.

Output:
- A JSON containing the analysis results, tailored according to the requested requirements.

Example of Request:
- Input Audio: A recording of a telephone survey where several questions are asked of the respondent.
- Requirement: Transcribe the responses, extract opinions, and analyze the overall sentiment of the respondent.

Example JSON Response:

```json
{
  "transcription": {
    "question_1": "How often do you use our product?",
    "answer_1": "I use it daily; it's essential for my work.",
    "question_2": "What do you like most about our service?",
    "answer_2": "Customer service is excellent, and they always resolve my questions."
  },
  "sentiment_analysis": {
    "answer_1": "Positive",
    "answer_2": "Very positive"
  },
  "overall_sentiment": "Very positive",
  "comments": "The respondent shows high satisfaction with the product and customer service."
}
```

Applications in Telephone Survey Analysis

1. Transcription and Storage of Responses
   - Description: The API automatically transcribes respondents' answers, storing them for later analysis.
   - Benefit: Eliminates the need for manual transcription, saving time and reducing human errors.

2. Analysis of Opinions and Sentiments
   - Description: Identifies the sentiment behind responses, classifying them as positive, negative, or neutral.
   - Benefit: Provides insights into the respondent's perception of products or services, aiding in strategic decision-making.

3. Extraction of Specific Data
   - Description: Extracts concrete responses to closed questions or demographic data provided during the survey.
   - Benefit: Facilitates the quantification and segmentation of data for more accurate statistical analysis.

4. Automated Report Generation
   - Description: Generates reports and summaries of surveys, highlighting trends and patterns found in the responses.
   - Benefit: Speeds up the analysis process and presentation of results to stakeholders, improving efficiency.

Examples of API Use in Telephone Survey Analysis

Example 1: Transcription and Sentiment Analysis
- Input Audio:
  - Interviewer: "What do you think about the quality of our service?"
  - Respondent: "I am very satisfied; I always receive quick and efficient service."
- Requirement: Transcribe the response and analyze the sentiment.
- API Request:

```
{
   "instructions": "Transcribe the response and analyze the sentiment."
}
```

API Response:

```
{
  "transcription": "I am very satisfied; I always receive quick and efficient service.",
  "sentiment_analysis": "Very positive",
  "comments": "The respondent expresses high satisfaction with the quality of the service."
}
```

Example 2: Extraction of Responses to Specific Questions
- Input Audio:
  - Interviewer: "On a scale from 1 to 5, how likely are you to recommend our product to a friend or colleague?"
  - Respondent: "I would give it a 5; I would definitely recommend it."
- Requirement: Extract the numerical rating provided by the respondent.
- API Request:

```
{
   "instructions": "Extract the numerical recommendation rating."
}
```

- API Response:

```
{
  "recommendation_rating": "5",
  "comments": "The respondent is very willing to recommend the product."
}
```

Example 3: Generation of Consolidated Report
- Input Audio: Multiple recordings of telephone surveys conducted with different customers.
- Requirement: Generate a consolidated report that includes transcriptions, sentiment analysis, and general trends.

- API Request:

```json
{
  "instructions": "Generate a consolidated report of the surveys."
}
```

- API Response:

```json
{
  "summary": {
    "total_surveys": 3,
    "average_sentiment": "Positive",
    "recurring_themes": ["Quality of service", "Speed of attention"],
    "average_recommendation_rating": "4.7"
  },
  "details": [
    {
      "survey_id": 1,
      "transcription": "...",
      "sentiment_analysis": "Positive"
    },
    {
      "survey_id": 2,
      "transcription": "...",
      "sentiment_analysis": "Very positive"
    },
    {
      "survey_id": 3,
      "transcription": "...",
      "sentiment_analysis": "Neutral"
    }
  ]
}
```

Advantages of Using the API in Telephone Survey Analysis
1. Efficiency in Data Collection and Analysis:
   - Automates transcription and analysis of responses, speeding up the results acquisition process.

2. Cost Reduction:
   - Decreases the need for personnel dedicated to manually transcribing and analyzing surveys.

3. Greater Precision:

- Minimizes human errors in transcription and allows for consistent analysis of sentiment and opinions.

4. Deep Insights:
   - Provides a deeper understanding of customer perceptions and needs, supporting strategic decisions.

5. Speed in Report Generation:
   - Allows sharing results and trends with stakeholders in less time, facilitating timely decision-making.

6. Improvement in Market Studies:
   - Facilitates more frequent and detailed market studies, quickly adapting to changes in consumer preferences.

Summary
The API /virtualbot/extract_from_audio provides an efficient and effective solution for the Analysis of Telephone Surveys, enabling companies to automate the transcription and analysis of respondents' answers. By offering automatic analysis of surveys and generating detailed reports, companies can reduce costs and time in market studies, obtain more precise and deep insights, and improve the quality of their strategic decisions. This tool is essential for any organization looking to optimize its market research processes and remain competitive in a constantly evolving business environment.