Data Analyst Intern - Assignment

TC IT Services | Data & Analytics Team

Assignment Overview

Position: Data Analyst Intern
Time Required: 4-5 hours
Submission Deadline: 5 business days from receipt
Format: PDF Report + Excel File

Your Mission

TC IT Services helps businesses reduce staffing costs by 60% through strategic outsourcing. We need data-driven insights to guide our Q1 2025 strategy.

Your task: Research the outsourcing industry, analyze real data, and provide actionable recommendations.

PART 1: Industry Research & Analysis (35%)

Task 1A: Market Overview

Research and answer these questions:

1. Global Outsourcing Market (150-200 words)

- What is the current market size (USD)?

- What is the annual growth rate?

- Which industries outsource most?

- Cite 3 credible sources

2. Top 5 Outsourcing Destinations

Create this table:

Country	Popular Services	Avg Hourly Rate	English Proficiency (1-10)	Key Advantages	Source

3. Industry Trends (150-200 words)

- What roles are most commonly outsourced?

- How is AI/automation impacting outsourcing?

- What are 2025 predictions?

- Cite sources

Task 1B: Competitive Analysis

Research **2 companies** that offer similar outsourcing services:

For each competitor:

- Company name and website

- Services offered

- Geographic reach

- Pricing model (if available)

- What they do well

- What gaps you see

Your Analysis (200-250 words):

- How can TC IT Services differentiate itself?

- What opportunities exist in the market?

Deliverable: Competitive comparison table + written analysis

PART 2: Data Analysis (40%)

Task 2A: Find Real Data

Find a **public dataset** related to:

- Global salaries by role/country

- Remote work trends

- Tech employment data

- Cost of living by country

- Or any relevant business data

Suggested sources:

- Kaggle (kaggle.com/datasets)

- World Bank Data (data.worldbank.org)

- Google Dataset Search

- Glassdoor/PayScale salary data

- Our World in Data

- LinkedIn Economic Graph

Task 2B: Analyze Your Data

1. Dataset Description

- What dataset did you choose? (include link)

- How many records?

- What time period?

- Why is it relevant to TC IT Services?

2. Key Findings

Extract and present **3 key insights** using this format:

Finding #1: [Clear Title]

What you found: [2-3 sentence explanation]

The data: [Show calculation, table, or chart]

Why it matters to TC IT Services: [2-3 sentences explaining business relevance]

Repeat for Finding #2 and Finding #3

Task 2C: Data Visualizations

Create **3 charts/graphs** that illustrate your key findings.

Requirements:

- Use appropriate chart types

- Clear titles and labels

- Professional design

- Include in your report with brief explanations

Tools: Excel, Google Sheets, Tableau Public, Python, R, or any free tool

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PART 3: Business Application (25%)

Task 3A: Cost Savings Calculator

Build an **Excel calculator** with these features:

Inputs:

- Number of employees to outsource

- Average US salary per role

- Role type (dropdown: Engineering, Support, Marketing, Data, Finance, Operations)

Calculations:

- Annual cost (US-based hiring)

- Annual cost (outsourced with 60% savings)

- Total annual savings

- 3-year savings projection

Requirements:

- Show all formulas

- Use cell references

- Clean, professional formatting

- Include simple instructions

Bonus: Add a chart showing cost comparison

Deliverable: Excel file with working calculator

Task 3B: Strategic Recommendations

Write a **500-600 word report** covering:

1. Market Opportunity (150 words)

- What's the size of the opportunity?
- Which industries/markets should we prioritize?
- Why is now the right time?

2. Key Insights from Your Analysis (200 words)

- What are your top 3 data-driven insights?
- What patterns did you discover?
- What surprised you?

3. Strategic Recommendations (200 words)

- Give 3 specific, actionable recommendations for Q1 2025
- Each must be backed by your research/data
- Explain expected impact

Format:

- Executive summary (50 words at top)
- Three sections above
- Conclusion (50 words)

BONUS CHALLENGE (Optional +10 points)

Choose **ONE:**

Option A: Salary Benchmark Analysis

- Compare salaries for 3 roles across 5 countries
- Calculate savings potential for each
- Create interactive visualization

Option B: Market Entry Strategy

- Recommend one new country for TC IT Services
- Analyze talent, costs, language, regulations

- Build data-backed business case

Option C: Advanced ROI Model

- Build financial model comparing traditional hiring vs outsourcing

- Include: hiring costs, productivity, retention, overhead

- Create 3-year scenario analysis

Submission Requirements

What to Submit:

1. PDF Report

- Cover page (name, contact info)

- All research and analysis

- Embedded visualizations

- Strategic recommendations

- Bibliography with all sources

2. Excel File

- Cost savings calculator

- Any analysis work

- Labeled sheets

3. Optional

- Additional files (Tableau, Python scripts, etc.)

File Naming:

- FirstName_LastName_DataAnalyst.pdf

- FirstName_LastName_Calculator.xlsx

Email To:

info@tccounsultingservices.in
Subject: Data Analyst Intern Assignment - [Your Name]

Evaluation Criteria

Area	Weight	What We Assess
Research Quality	25%	Source credibility, depth, relevance
Data Analysis	30%	Methodology, insights, accuracy
Visualizations	15%	Clarity, design, appropriate charts
Business Thinking	20%	Strategic value, practical recommendations
Presentation	10%	Professional, clear, well-organized

Total: 100 points (110 with bonus)

Resources You Can Use

Data Sources:

- Kaggle
- World Bank Data
- Google Dataset Search
- Statista (free tier)
- LinkedIn insights
- Glassdoor/PayScale
- Our World in Data

Tools:

- Excel/Google Sheets (required)
- Tableau Public (free)
- Python/R (optional)
- Flourish, Datawrapper (free viz tools)

Research:

- Google Scholar
- Industry reports (Gartner, Deloitte, McKinsey)

- Company websites
- News articles

Tips for Success

DO: ☑ Cite all sources properly ☑ Focus on business relevance, not just numbers ☑ Show your methodology and formulas ☑ Use clear, professional visualizations ☑ Proofread everything ☑ Think strategically about recommendations

DON'T: ✗ Use unreliable sources ✗ Copy-paste without attribution ✗ Present data without context ✗ Use wrong chart types ✗ Make claims without data support ✗ Submit without checking for errors

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Sample Report Structure

Suggested page breakdown:

1. **Cover Page** (1 page)
2. **Executive Summary** (1 page)
3. **Part 1: Industry Research** (3-4 pages)
   - Market overview
   - Outsourcing destinations
   - Trends
   - Competitive analysis
4. **Part 2: Data Analysis** (4-5 pages)
   - Dataset description
   - 3 key findings with visualizations
   - Analysis
5. **Part 3: Strategic Recommendations** (2-3 pages)
   - Market opportunity
   - Key insights
   - Recommendations

6. **Conclusion** (1 page)

7. **Bibliography** (1 page)

Total: 12-15 pages

Next Steps After Submission

Timeline:

1. **Review:** 3 business days

2. **Interview:** 30-minute discussion about your findings (top candidates)

3. **Final Round:** Technical assessment + team meet

4. **Decision:** Within 3 business days

Frequently Asked Questions

Q: What if I can't find perfect data?
A: Use the best available data and document limitations. We value honest analysis.

Q: Can I use AI tools like ChatGPT?
A: Yes, for research help. But analysis and writing must be your original work.

Q: How technical should my analysis be?
A: Focus on clarity over complexity. Basic analysis (averages, percentages, comparisons) done well beats complicated methods done poorly.

Q: What if my findings contradict your business model?
A: Be honest with the data. We value intellectual honesty and critical thinking.

Q: Can I focus on one specific industry?
A: Yes, if you justify why and make it relevant to our business.

Pre-Submission Checklist

- [ ] Market research completed (3+ sources cited)

- [ ] Top 5 outsourcing destinations researched

- [ ] 2 competitors analyzed

- [ ] Public dataset found and analyzed

- [ ] 3 key findings documented with evidence

- [ ] 3 visualizations created

- [ ] Cost calculator built and tested

- [ ] Strategic recommendations written (500-600 words)

- [ ] All sources properly cited

- [ ] Everything proofread

- [ ] Files named correctly

- [ ] Ready to submit

What We're Really Looking For

Beyond technical skills, we want to see:

Curiosity:

- Do you ask interesting questions?

- Do you dig deeper than surface level?

Critical Thinking:

- Do you evaluate sources?

- Do you consider multiple perspectives?

Business Sense:

- Are your insights actionable?

- Do you understand practical applications?

Communication:

- Can you explain complex ideas simply?

- Are your visualizations clear?

Initiative:

- Do you take ownership?

- Do you make smart decisions independently?

Example of Strong Work

Good Finding: "Senior software engineers in Poland earn an average of $45,000 annually compared to $130,000 in the US (PayScale, 2024). This 65% cost difference aligns with TC IT Services' value proposition. Poland also ranks #13 globally in English proficiency (EF EPI, 2024) and operates in CET timezone, allowing 6-hour overlap with US East Coast. Recommendation: Expand recruitment efforts in Poland for tech roles."

Why it's good:

- Specific data with sources

- Multiple relevant factors analyzed

- Clear business application

- Actionable recommendation

Good Luck!

This is your chance to show us how you think, research, analyze, and communicate. There's no single "right answer"—we want to see your unique approach and insights.

Take your time. Be thorough. Show us what you can do.

We're excited to see your work!

TC IT Services
Data-driven decisions. Real-world impact.

Questions?
Email: **info@tccounsultingservices.in**
Subject: Question - Data Analyst Assignment
Response time: Within 24 hours (business days)

Ready to submit?
Email: **info@tccounsultingservices.in**
Subject: Data Analyst Intern Assignment - [Your Full Name]