Business Requirements Document

Y Combinator Analytics Dashboard

Document Information

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1. Executive Summary

1.1 Project Purpose

This project creates an interactive dashboard to analyze Y Combinator startup data and help people make better business decisions. The dashboard will show success patterns, industry trends, and key insights from 5,407 companies over 20 years.

1.2 Key Benefits

- **Better Decision Making**: Data-driven insights for entrepreneurs and investors
- **Market Understanding**: Clear view of which industries perform best
- **Success Patterns**: Identify what makes startups successful
- **Professional Portfolio**: High-quality project for job applications

1.3 Project Scope

- Analyze 5,407 Y Combinator companies (2005-2025)
- Build 3-page interactive Power BI dashboard
- Provide insights for entrepreneurs, investors, and recruiters
- Complete project in 3 weeks

2. Project Background

2.1 Current Situation

Right now, there's no easy way to analyze Y Combinator's complete startup portfolio. People have to look at different websites and sources to understand success patterns. This makes it hard to make good decisions about:

- Which industries to focus on
- What makes startups successful
- How the YC program has changed over time

2.2 Business Problem

Main Problem: Stakeholders don't have access to comprehensive Y Combinator analysis in one place.

Specific Issues:

- Entrepreneurs struggle to choose the right industry
- Investors lack benchmarking data for decisions
- No clear view of YC program evolution
- Data is scattered across multiple sources

2.3 Proposed Solution

Create an interactive Power BI dashboard that brings all YC data together and makes it easy to explore insights through filtering and drill-down capabilities.

3. Business Objectives

3.1 Primary Goals

1. **Analyze Success Patterns**: Find out what makes YC companies successful

2. **Industry Insights**: Identify which industries have the best success rates

3. **Program Evolution**: Show how YC has changed over 20 years

4. **Stakeholder Value**: Provide useful insights for different user groups

3.2 Success Metrics

- Dashboard loads in less than 5 seconds

- All data is 95%+ accurate

- Users can easily find answers to their questions

- Professional quality suitable for job interviews

3.3 Expected Outcomes

- Clear understanding of YC success factors

- Industry performance benchmarks

- Interactive tool for exploring data

- Professional project for portfolio

4. Stakeholder Analysis

4.1 Primary Users

Entrepreneurs & Founders

- **What they need**: Help choosing industries and understanding success factors
- **How they'll use it**: Research before applying to YC, market analysis
- **Success measure**: Can make informed industry selection decisions

Investors & VCs

- **What they need**: Data for investment decisions and portfolio planning
- **How they'll use it**: Due diligence, market research, trend analysis
- **Success measure**: Better investment decision-making

Recruiters & HR

- **What they need**: Assess candidate's technical and analytical skills
- **How they'll use it**: Evaluate project quality during interviews
- **Success measure**: Clear demonstration of business analysis capabilities

4.2 Secondary Users

YC Program Managers

- **What they need**: Insights on program effectiveness
- **How they'll use it**: Internal performance review
- **Success measure**: Understanding of batch optimization opportunities

5. Functional Requirements

5.1 Core Features

REQ-001: Interactive Filtering

- **Description**: Users can filter data by industry, batch year, company status

- **Priority**: High
    - **Acceptance Criteria**:
- All filters work together
- Filters update all visuals on the page
- Filter selections are clear to users

REQ-002: Key Performance Indicators

- **Description**: Show important metrics like success rate, total companies, active companies

- **Priority**: High

- **Acceptance Criteria**:
  - KPIs are clearly visible

  - Numbers update when filters are applied

  - Calculations are accurate

REQ-003: Industry Analysis

- **Description**: Compare performance across different industries

- **Priority**: High

- **Acceptance Criteria**:
  - Success rates shown by industry

  - Easy to identify top performing sectors

  - Can drill down to see company details

REQ-004: Trend Analysis

- **Description**: Show how things have changed over time

- **Priority**: Medium

- **Acceptance Criteria**:
  - Clear time-based charts
  - Trend lines where appropriate
  - Easy to spot patterns

REQ-005: Data Export

- **Description**: Allow users to export data for further analysis
- **Priority**: Low
- **Acceptance Criteria**:
  - Can export filtered data
  - Export formats include Excel/CSV
  - Exported data matches what's shown on screen

5.2 Performance Requirements

- Dashboard must load within 5 seconds
- Interactions should respond within 2 seconds
- Must work on desktop computers
- Should be usable on tablets

6. Dashboard Pages

6.1 Page 1: "YC at a Glance"

Purpose: Executive overview with key metrics

Content:
- Total companies count
- Overall success rate
- Active companies' percentage
- Average team size
- High-level status distribution chart
- Brief project description

Target Users: All stakeholders for quick overview

6.2 Page 2: "Success Insights"

Purpose: Detailed analysis of success patterns

Content:

- Success rate by industry (bar chart)
- Companies by batch year (column chart)
- Team size vs success analysis
- Top performing batches table
- Interactive filters for deep-dive analysis

Target Users: Entrepreneurs, investors looking for detailed insights

6.3 Page 3: "Market Intelligence"

Purpose: Comprehensive market trends and patterns

Content:

- Success rate trends over time (line chart)
- Industry distribution (treemap)
- Company status breakdown (pie chart)
- Geographic analysis if possible
- Detailed filtering options

Target Users: Investors, researchers, program managers

7. Data Requirements

7.1 Data Source

- Y Combinator company database

- 5,407 companies from 2005-2025

- Publicly available information only

7.2 Key Data Fields

Field Name	Description	Data Type	Required
id	Company identifier	Number	Yes
name	Company name	Text	Yes
industry	Primary business sector	Text	Yes
batch	YC batch (e.g., W21)	Text	Yes
status	Current company status	Text	Yes
top_company	Success indicator	True/False	Yes
team_size	Number of team members	Number	No
launched_at	Company launch date	Date	No

7.3 Data Quality Requirements

- 95% completeness for required fields
- Consistent industry categorization
- Accurate success classifications
- No duplicate company records

7.4 Calculated Fields Needed

- Success rate percentages
- Company age in years
- Batch year (extracted from batch field)
- Team size categories (Small/Medium/Large)

8. Success Criteria

8.1 Technical Success Measures

Criteria	Target	How to Measure
Data Accuracy	95%+	Manual spot checks
Load Time	<5 seconds	Performance testing
User Satisfaction	4/5 rating	Stakeholder feedback
Feature Completeness	100%	Requirements checklist

8.2 Business Success Measures

- Dashboard answers key business questions

- Insights are actionable and valuable

- Professional quality suitable for portfolio

- Stakeholders find it useful

8.3 User Acceptance Criteria

- Users can navigate without training

- All charts and filters work correctly

- Data matches expectations

- Export functionality works

- Mobile/tablet viewing is acceptable

9. Timeline

9.1 Project Phases

Week 1: Data Preparation

- **Days 1-2**: Data collection and initial review
- **Days 3-4**: Data cleaning in Excel
- **Days 5-7**: Data validation and calculated fields

Deliverables: Clean dataset ready for analysis

Week 2: Dashboard Development

- **Days 8-10**: Power BI setup and data modeling
- **Days 11-12**: Page 1 and 2 developments
- **Days 13-14**: Page 3 development and testing

Deliverables: Functional 3-page dashboard

Week 3: Testing and Documentation

- **Days 15-17**: User testing and bug fixes
- **Days 18-19**: Documentation and user guide
- **Days 20-21**: Final review and deployment

Deliverables: Complete project with documentation

9.2 Key Milestones

- **Week 1 End**: Data ready for analysis

- **Week 2 End**: Dashboard functional

- **Week 3 End**: Project complete

10. Risks and Assumptions

10.1 Project Risks

High Risk

Risk	Impact	Likelihood	Mitigation
Data quality issues	High	Medium	Thorough validation process
Technical difficulties	Medium	Low	Extra testing time built in

Medium Risk

Risk	Impact	Likelihood	Mitigation
Scope creep	Medium	Medium	Clear requirements document
Stakeholder changes	Medium	Low	Regular check-ins

10.2 Project Assumptions

- Y Combinator data is publicly available and accurate
- Power BI licenses will be available
- 3-week timeline is sufficient
- Stakeholders will provide feedback when requested
- No major technical issues with Power BI platform

10.3 Dependencies

- Access to clean Y Combinator dataset
- Microsoft Power BI Desktop software
- Time for stakeholder review and feedback
- Computer with sufficient processing power

11. Conclusion

11.1 Project Summary

This project will create a valuable analytics dashboard that helps entrepreneurs, investors, and other stakeholders understand Y Combinator success patterns. The 3-page Power BI dashboard will provide both high-level insights and detailed analysis capabilities.

11.2 Expected Benefits

- **For Entrepreneurs**: Better industry selection and success factor understanding
- **For Investors**: Data-driven investment insights and benchmarking

- **For Recruiters**: Clear demonstration of technical and analytical capabilities

- **For Project Owner**: Professional portfolio piece showcasing business analysis skills

11.3 Next Steps

1. Stakeholder approval of this BRD

2. Data collection and preparation

3. Dashboard development following the timeline

4. Regular progress updates and stakeholder feedback

5. Final testing and documentation

11.4 Success Definition

The project will be successful when:

- All functional requirements are met

- Dashboard loads quickly and works smoothly

- Stakeholders find insights valuable and actionable

- Professional quality suitable for job applications and portfolio

Document Approval

Role	Name	Signature	Date
Project Owner	Waleed abdullah	_____	_____
Business Stakeholder	TBD	_____	_____
Technical Reviewer	TBD	_____	_____

This document serves as the official requirements specification for the Y Combinator Analytics Dashboard project. Any changes to requirements must be documented and approved through proper change control process.