skillcubator
learn and lead

Artificial Intelligence (AI) Business Analysis Training and Placement Program

COURSE DETAILS DOCUMENT

• LIVE Live - Online  In-person  Private Team Training

Prerequisites

Truly speaking, there are no prerequisites to become a successful Artificial Intelligence (AI) business analyst. But it would be nice to have the following to become a successful business analyst:

- Basic computing skills (MS Office like Word, Excel and PowerPoint).
- Decent communication skills (verbal and writing in English).
- Comfortable talking to people.
- Normal analytical skills.

Artificial Intelligence (AI) is transforming how businesses operate—and business analysts are at the forefront of this evolution. AI is no longer a futuristic concept, it's a core enabler of innovation across industries such as finance, healthcare, retail, logistics, insurance and many more. To remain relevant and future-ready, business analysts must adapt and acquire the skills necessary to work on AI-powered solutions. Skillcubator's 'Artificial Intelligence Business Analysis' Training and Placement Program is a comprehensive, career-focused program designed to equip aspiring and/or experienced business analysts with the skills, tools, and industry exposure needed to thrive in AI-enabled environments. This instructor-led, project-based training program offers a unique blend of business analysis and AI. Participants are trained to act as key enablers in AI solution development, facilitating requirement elicitation, defining AI use cases, interpreting data-driven insights, and supporting cross-functional AI teams. Furthermore, this program bridges the gap between traditional business analysis and modern AI technologies, empowering participants to elicit, analyze, and manage AI-related business and software requirements with precision. From understanding machine learning models and data pipelines to collaborating with data scientists and stakeholders, this course prepares you for end-to-end involvement in AI solution development.

Is This Program Right for You?

If you are looking to transform into a business analyst role leveraging Artificial Intelligence (AI) technology with a goal to build a rewarding career in information technology domain, this program is the best fit for you. NO PRIOR TECHNICAL BACKGROUND IS REQURIED AND NO CODING REQUIRED to transition into 'Artificial Intelligence Business Analyst' role.

- You want to switch into Information Technology field and start your career in the field of business analysis.
- You are already working in Information Technology field as either developer, tester, technical writer etc. but want to transition into a business analyst role.
- You are an entry-level business analyst or lack that confidence and courage to work as a business analyst.
- You want to augment your business analyst career by learning Artificial Intelligence (AI) concepts and tools.
- You want to work on a more challenging project, which involves usage of AI technology.

Course Objective:

- Understand the core principles of Business Analysis, Artificial Intelligence, Machine Learning, and their business implications.
- Learn how to identify, define, and prioritize AI use cases that deliver business value.
- Build expertise in eliciting, analyzing, documenting solution-level requirements from AI perspective.
- Gain skills in framing problem statements, documenting business/software requirements, and translating them into AI system specifications.
- Acquire proficiency in tools and techniques such as business process modeling (BPMN), data flow diagrams, Unified Modeling Language (UML), Structured Query Language (SQL) etc.
- Collaborate effectively with data scientists, data engineers, and stakeholders in Agile and hybrid project environments.
- Navigate ethical, legal, and regulatory concerns related to AI including bias, transparency, and responsible AI practices

Course Outline

Business Analysis

Module 1

1. **Business Analysis Fundamentals**
    - 1.1. What is business analysis?
    - 1.2. Who is a business analyst?
    - 1.3. Importance of business analyst.
    - 1.4. Real-world business analyst use cases.
    - 1.5. A typical day of a business analyst.
2. **Project Management Overview**
    - 2.1. What is a project?
    - 2.2. What is project management?
    - 2.3. Understanding the 'Iron Triangle'.
    - 2.4. What are the different phases of a project?
    - 2.5. Understanding various knowledge areas and processes within each of them
    - 2.6. Reviewing key project management artifacts.
    - 2.7. Project scope v/s Product scope.
    - 2.8. Creating 'Project Plan' (schedule) using Gantter tool.
3. **Key Management Concepts**
    - 3.1. Value chain.
    - 3.2. Lean methodology.
    - 3.3. Kanban.
    - 3.4. Poka-Yoke.
    - 3.5. Core Competency.
    - 3.6. Kaizen.
    - 3.7. Business Process Re-engineering.
    - 3.8. Business Process Improvement.
4. **Understanding Stakeholder Landscape**
    - 4.1. Primary v/s Secondary stakeholder.

4.2. Active v/s Passive stakeholder.

4.3. Understanding various types of stakeholders via a live case study.

4.4. What are the different organizational structures?

4.5. Creating 'RACI' matrix using MS Excel.

4.6. Creating 'Organizational Structures' using MS Visio, Lucid Chart, Gliffy, or Visual Paradigm.

5. Understanding different types of requirements

5.1. What is a requirement?

5.2. Understanding different types of requirements.

5.3. Business need.

5.4. Stakeholder requirement.

5.5. Functional.

5.6. Non-Functional.

5.7. Interface.

5.8. Graphical User Interface.

5.9. Business rules.

6. What is Software Development Lifecycle?

6.1. Understanding the different phases of an SDLC.

6.2. Role of a business analyst in each of the SDLC phases.

6.3. Learning and comparing (a) Predictive (b) Iterative and Incremental and (c) Adaptive SDLC models.

7. Reviewing Different Software Engineering Models

7.1. Waterfall.

7.2. Spiral.

7.3. Rapid Application Development (RAD).

7.4. Rational Unified Process (RUP).

7.5. SCRUM (More emphasis will be given on SCRUM).

8. Requirements Lifecycle

8.1. Requirements elicitation.

8.2. Requirements analysis.

8.3. Requirements documentation.

8.4. Solution assessment.

8.5. Requirements management.

Module 2

9. Requirements Elicitation

9.1. What is requirements elicitation?

9.2. Understanding various requirements elicitation techniques.

9.3. Brainstorming.

9.4. Focus Group.

9.5. Requirements Workshops.

9.6. Interviews.

9.7. Questionnaire/Survey.

9.8. Document Analysis.

9.9. Prototyping.

9.10. Pros and Cons of each of the requirements elicitation techniques.

10. Business Requirements Analysis

10.1. SWOT analysis technique.

10.2. RCA (Root Cause Analysis) technique.

10.3. Five whys.

10.4. Fishbone (Ishikawa).

10.5. Business Process Management.

10.6. What is Business Process Management (BPM)?

10.7. What is Business Process Modeling?

10.8. Understanding various business process modeling notations.

10.9. How to create a business process model?

10.10. Creating 'As-Is' (Current State) and 'To-Be' (Future State) business process model using MS Visio/Lucid chart/Gliffy tools.

10.11. Creating 'Root Cause Analysis' diagram using MS Visio/Lucid chart/Gliffy tools.

11. System Requirements Analysis

11.1. What is System Context Diagram?

11.2. Creating System Context Diagram using MS Visio/Lucid chart/Gliffy tools (Hands-On Exercise).

11.3. Object Oriented Concepts.

11.4. What is Unified Modeling Language (UML)?

11.5. Use Case Diagrams.

11.6. Activity Diagrams.

11.7. State Chart/State Machine Diagrams.

11.8. Sequence Diagrams.

11.9. Creating all UML models (mentioned above) using MS Visio/Lucid chart/Gliffy tools.

11.10. What is 'Functional Requirements Document' (FRD) and writing FRD using MS Word.

11.11. What is a Use Case Specification?

11.12. Writing a Use Case Specification Document using MS Word (Hands-On Exercise).

11.13. Creating Data Dictionary using MS Word (Hands-On Exercise).

11.14. Creating Business Rules Document using MS Excel (Hands-On Exercise).

12. Scrum

12.1. What is 'Agile Software Development?

12.2. Understanding various 'Agile Software Development' practices/models.

12.3. What is SCRUM?

12.4. What is 'Agile Manifesto'?

12.5. Different roles in a SCRUM.

12.6. Role of a business analyst in a SCRUM.

12.7. Understanding various 'Ceremonies' in a SCRUM.

12.8. Writing Features-Epics-User stories using JIRA tool (Hands-On Exercise).

12.9. Writing 'Acceptance Criteria' using Gherkin syntax (Given-When-Then) using JIRA tool (Hands-On Exercise).

12.10. How to estimate a user story and add user story attributes in a JIRA tool (Hands-On Exercise)?

12.11. What is team velocity?

12.12. Understanding burndown/burnup chart and how to create using MS Excel and/or JIRA tool.

12.13. How to initiate, execute and close sprints/iterations using JIRA tool using JIRA tool? (Hands-On Exercise).

12.14. Various techniques on splitting an EPIC into small user stories.

12.15. How to create wireframes/mockups using Balsamiq tool?

13. Structured Query Language (SQL)

13.1. What is database?

13.2. What is a table (column/row) in a database?

13.3. What is Entity Relationship Diagram (ERD)?

13.4. How to create an ERD diagram using Visio? (Hands-On Exercise).

13.5. Understanding database schema.

13.6. What is datatype?

13.7. What is SQL?

13.8. Write SQL queries (Hands-On Exercise).

Module 3

14. Requirements Management

14.1. What is requirements management?

14.2. Understanding 'Requirements Management Plan' (RMP)

14.3. What is Requirements Traceability Matrix (RTM)?

14.4. Creating an RTM using DOORS/ MS Excel tool (Hands-On Exercise).

15. Requirements Estimation

15.1. Why to estimate requirements and importance of estimating software requirements?

15.2. Overview of different software requirements estimating models.

15.3. Understanding 'Industry Best Practices' to estimate a requirement.

16. Configuration Management

16.1. What is configuration management?

16.2. Benefits of configuration management.

16.3. Applying CM using tortoise SVN tool (Hands-On Exercise).

17. Change Control

17.1. What is change control board (CCB)?

17.2. Role of a business analyst in a CCB process.

18. Quality Assurance

18.1. What is quality assurance?

18.2. Different types of testing models.

18.3. Role of a business analyst in quality assurance/testing phase.

19. Miscellaneous Topics

19.1. What is Service-Oriented Architecture?

19.2. What is Cloud Computing and various cloud computing models?

19.3. What is Business Process Model and Notation (BPMN)?

19.4. Creating BPMN model using MS Visio tool (Hands-On Exercise).

Artificial Intelligence

Module 1

1. **AI Fundamentals**
    1.1. What is AI?
    1.2. AI v/s Traditional Programming.
    1.3. What is Machine Learning?
    1.4. What is Data Science.
2. **Understanding Data**
    2.1. What is data?
    2.2. Structured v/s Unstructured data.
    2.3. Data Lifecycle.
    2.4. Data Processing.
    2.5. Feature Processing.
3. **Machine Learning (ML) Deep Dive**
    3.1. ML Problem Types.
    3.2. Supervised vs Unsupervised vs Reinforcement Learning.
    3.3. Training & testing.
    3.4. Performance Evaluation.
    3.5. Machine Learning strengths and limitations
4. **Deep Learning**
    4.1. What is Deep Learning?
    4.2. Anatomy of the Neural Network.
    4.3. Deep Learning Terminologies.
    4.4. Challenges.
5. **AI Project Workflow**
    5.1. Machine Learning Workflow (MLOps).

5.2. Data Science Workflow.

Module 2

6. **Computer Vision**
    - 6.1. What is Computer Vision.
    - 6.2. Image Processing.
    - 6.3. Optical Character Recognition (OCR).
    - 6.4. Object Detection.
    - 6.5. Facial Recognition.
7. **Natural Language Processing**
    - 7.1. What is NLP?
    - 7.2. Text Processing.
    - 7.3. Sentiment Analysis.
    - 7.4. Chatbots.
8. **Generative AI (GenAI) Foundation**
    - 8.1. What is GenAI?
    - 8.2. Popular models: GPT, DALL·E, Stable Diffusion.
    - 8.3. Defining and building GenAI system.
    - 8.4. Prompt Engineering.
    - **8.5.** Hallucinations and misinformation risks
9. **Large Language Model (LLM)**
    - 9.1. Pre-training.
    - 9.2. LLM customizations-RAG and Fine-tuning.
    - 9.3. LangChain.
    - 9.4. Reinforcement Learning from Human Feedback (RLHF).
    - 9.5. LLMOps.
    - 9.6. Model size & Costing of LLMs.
10. **Generated Visuals**
    - 10.1. How AI generates images (Stable Diffusion, DALL·E, Midjourney).
    - 10.2. AI in branding & advertising (social media creatives, design automation).
    - 10.3. AI-driven video production & animation Activity.

11. AI Generated Voice and Speech

11.1. Text-to-speech, voice cloning & narration.

11.2. Conversational AI.

12. Collaborating with AI Teams

12.1. Understanding team roles.

12.2. Common tools and platforms.

12.3. Establishing effective workflow

13. AI Workflow Automation with Zapier

13.1. Automating Repetitive Business Tasks.

13.2. AI & No-Code Automation Tools.

13.3. Optimizing AI workflows.

14. AI Ethics, Bias and Compliance

14.1. Addressing bias in AI models.

14.2. Ethical considerations in AI projects.

14.3. AI compliance & regulatory frameworks.

14.4. AI security risks.

15. End-to-End Case Study (any 3)

15.1. Sales and Marketing.

15.2. Customer Service.

15.3. Data Analytics.

15.4. Healthcare.

15.5. Finance.

Features

- Training Program as per Latest Industry Demand
- IIBA Endorsed Education Provider
- Access to Learning Management System (LMS)
- Free PSM-I and PSPO-I training included in the package
- 40 PDUs/CDUs
- IIBA Certified Instructors with 20 plus years of experience
- Plenty of case studies, In-Class exercises, quizzes, and take-home assignments
- 10 Plus Industry-Standard tools
- Personalized Resume, LinkedIn Profile makeover and Cover Letter
- Course aligned to IIBA's BABOK 3.0 and PMI's body of knowledge
- Comprehensive Capstone project
- Experiential learning through case studies

Software/Tools Used for this training

Business Analysis Software

- Microsoft Office (Word, Excel, PowerPoint).
- Microsoft Visio, Gliffy, Lucidchart.
- Bizagi, Camunda, Bonita, Signavio, Draw.io.
- Microsoft Project, Product Plan, Gantter.
- Balsamiq, Mockflow.
- Jira.
- Confluence.
- Tortoise SVN.
- Oracle.
- Kanbantool, backlog.com, or similar Kanban tool.

Artificial Intelligence Software

Deep Learning

- TensorFlow Playground.

Computer Vision

- Google Vision API.

LLM Tuning

- OpenAI Playground.

AI Workflow Automation

- Zapier.

Data Analysis

- Tableau.
- Julius AI.

NLP

- MonkeyLearn.
- AI Chatbots.
- Claude AI.
- Perplexity.
- Copilot.
- ChatGPT.

Conversational AI

- DiagFlow.
- Rasa.

No-Code ML Models

- KNIME.
- Akkio.

Duration

Business Analysis Sessions:

- 10 weeks (Monday, Tuesday, and Thursday from 8:00 PM EST to 10:00 PM EST).
- Core Training Hours: 50 hours.

Artificial Intelligence Sessions

- 8 weeks (Saturday and Sunday from 08:00 AM EST to 11:00 AM EST).
- Core Training Hours: 30 hours.

[Please Note: Exact schedule is finalized based on the Instructor and trainees' availability]

Fees

1500 USD + 5.3% Sales Tax

(13.5% GST is applied instead of 5.3% for Canadian candidates**)**