

# **Internship Report**

**Aspire Knowledge and Skills India Pvt. Ltd.**

**A report submitted to**

**Department of Information Technology**

**PVG's**

**College of Engineering and Technology & G. K. Pate (Wani) Institute of**

**Management,Pune-09**

**Savitribai Phule Pune University,Pune**

**By**

**Khot Shubham Mahadev**

**Exam Seat No. : T1900708536**



**Department Of Information Technology**  
**Pune Vidyarthi Griha's College of Engineering & Technology**  
**and G K Pate (Wani) Institute of Management Pune- 411009**

**2024-25**

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## 1. TITLE PAGE

❖ **Organisation Name:** Aspire knowledge and Skills India Pvt. Ltd.

❖ **Intern Details:**

**Name:** khot Shubham Mahadev

**Contact Number:** 7517536504

**Email ID:** 22113025@pvgcoet.ac.in

❖ **Submission date of report:** 23 April 2025

❖ **Duration of Internship:** 1 Months

❖ **College and Company Logo :**



## 2. LETTER OF UNDERTAKING



**PVG's College of Engineering and Technology & G. K. Pate (Wani)  
Institute of Management, Pune - 411009**

I Khot Shubham Mahadev Third year student of Information technology department, PVG's COET & GKP (W) IOM, Pune-9 hereby confirm that the internship report I have provided is solely my own effort. I did not copy my report partially or completely from any other student or from any other source either against payment or free and I did not provide any plagiarized material in any section of my report. I further confirm that the document (internship completion certificate) that I have provided is genuine (i.e. not forge/fake) and has been issued by the authorized person in the organization. If I am found guilty of misstating, misleading or concealing the facts about my activities (either academic or non-academic but relevant to this course) at any stage, the university is authorized to take disciplinary action against me according to university policies and regulations. I assure that I will follow the instructions regarding presentation. and will appear on the scheduled date for presentation which will be intimated to me by the department. In case of any negligence, I shall be held responsible.

**Name:** Khot Shubham Mahadev

**Signature :**

**Date:** 23<sup>rd</sup> April 2025

### 3. COMPLETION CERTIFICATE



**PVG's College of Engineering and Technology & G. K. Pate (Wani)  
Institute of Management, Pune - 411009**

**Position:** AI – Business Intelligence Analyst (Internship program)

Note:- This Completion Certificate Will Be Provided By within some days.

**Position:** Web Developer Intern

VN-WD-4W335



**VIRTUNEXA**



[www.virtunexa.com](http://www.virtunexa.com)  
[contact@virtunexa.com](mailto:contact@virtunexa.com)

**Date- 09/02/2025**  
Ref No: VN/0225/CC/47

**CERTIFICATE OF  
INTERNSHIP COMPLETION**

**To Whomsoever It May Concern,**

This is to certify that **Shubham Mahadev Khot** has successfully completed a virtual internship as an **Web Developer Intern** at **VirtuNexa**. Throughout the internship period, which commenced on **01-Jan-2025** and concluded on **31-Jan-2025**, the intern demonstrated remarkable skills, dedication, and professionalism in carrying out the assigned responsibilities.

During the internship, Shubham Mahadev Khot contributed meaningfully to our projects and gained hands-on experience in the industry, making a positive impact through their work. This internship provided valuable insights into the IT industry and allowed them to develop both technical and professional skills

With Warm Regards



**HR Manager  
VirtuNexa**



Listed on



Registered As



**AICTE Approved Internship**



Affiliated to Savitribai Phule Pune University  
**PVG's College of Engineering and Technology & G. K. Pate (Wani)**  
**Institute of Management, Pune - 411009**

## **CERTIFICATE**

This is to certify that the internship in “**AI–Business Intelligence Analyst** ” by **Khot Shubham Mahadev ( T1900708536)** , represents a genuine record of the work conducted by him/her. This work was undertaken as part of the partial fulfillment of the Presentation & Term-work requirements for the third year of the Information Technology program at Savitribai Phule Pune University, conducted at Pune Vidyarthi Griha's College of Engineering and Technology & G.K. Pate (Wani) Institute of Management, Pune, under Savitribai Phule Pune University, during the academic year 2023-24.

**Date:** - 23<sup>rd</sup> April 2025

**Place:** - Pune

**Internal Examiner**

**External Examiner**

## **4. OVERVIEW OF THE ORGANIZATION**

### **4.1 Introduction of the Organization:**

Aspire Knowledge and Skills India Pvt. Ltd. (ASPIRE) is a leading skill development and training organization in India, established with the objective of bridging the gap between academic knowledge and industry demands. With a legacy of over 27 years in education and workforce development, Aspire has consistently focused on enhancing employability, promoting entrepreneurship, and supporting sustainable livelihoods. The organization operates on the belief that equipping students with practical, industry-aligned skills is essential to meet the evolving challenges of the modern workplace.

ASPIRE delivers a variety of skilling and upskilling programs in collaboration with colleges, universities, and government bodies. These programs are designed based on market demand and industry trends, integrating technical knowledge with real-world applications. One of its flagship offerings is the "AI & Business Intelligence Analyst" (AIBIA) training program, which equips learners with foundational to advanced knowledge in artificial intelligence, business intelligence tools, data handling, visualization, and analytics. This course serves as an ideal gateway for IT students to enter data-driven industries confidently.

The organization also works closely with stakeholders such as industry partners, training institutions, and government departments to implement projects under initiatives like NSDC, PMKVY, and other Ministry of Skill Development schemes. ASPIRE has successfully trained and certified over one lakh students, placing more than 50,000 of them in reputed organizations across sectors including IT, finance, retail, and data analytics.

### **4.2 Organization Communication Details:**

- **Official Email:** [info@aspireks.com](mailto:info@aspireks.com)
- **Contact Number:** +91-20-25512228 / 25530291

- **Website:** [www.aspireks.com](http://www.aspireks.com)

#### **4.3 Internship Supervisor Name & Communication Details:**

- **Name:** Dr. Sanjay Gandhi
- **Designation:** Chairman & Managing Director
- **Email:** info@aspireks.com
- **Phone:** Same as organization contact

#### **4.4 Company Address / Website URL:**

- **Address:**  
Aspire Knowledge and Skills India Pvt. Ltd.,  
1289, J. M. Road, Opp. Hotel Swan Inn,  
Near Balgandharva, Shivajinagar,  
Pune – 411005, Maharashtra, India.
- **Website URL:** <https://www.aspireks.com>



## 5. COMPLETED INTERNSHIPS

### 5.1 Brief description of number of internships completed during Academic Year 2024- 25.:

Sr No .	Internship Position	Organisation Name - Address	Start Date	End Date	Duration
1	AI – Business Intelligence Analyst internship program	Aspire Knowledge and Skills India Pvt. Ltd.  Shivajinagar, Pune – 411005,	01/01/2025	29/01/2025	1 Month (150 hours)
2	Web Developer Intern	VirtuaNexa	01/01/2025	31/01/2025	1 Month

## 6. INTERNSHIP TRAINING PROGRAM REPORT DETAILS

### 6.1 Introduction of internship program:

#### **AI – Business Intelligence Analyst**

The **AI – Business Intelligence Analyst (AIBIA)** internship program conducted by **Aspire Knowledge and Skills India Pvt. Ltd.** was designed to equip students with cutting-edge skills in Artificial Intelligence and Business Intelligence. The program focused on the growing importance of data-driven decision-making in the modern business landscape. It combined theoretical knowledge with hands-on experience using industry-standard tools and technologies.

The internship served as a bridge between academic learning and professional expectations, helping students understand the role of AI in various industries and how to effectively analyze and visualize business data to derive meaningful insights. It also introduced foundational concepts of machine learning, data preprocessing, statistical analysis, and report generation.

### 6.2 Objectives

The key objectives of the internship program were:

- To provide an understanding of Artificial Intelligence and its application in solving business problems.
- To develop skills in handling, processing, and analyzing large datasets.
- To introduce students to business intelligence tools like Power BI, Tableau, and RStudio.
- To build awareness of real-time business analytics use-cases and their implementation.
- To enhance knowledge of statistical tools such as regression models, correlation, and hypothesis testing.
- To train students in effective data visualization techniques for business storytelling.
- To foster professional skills like communication, client handling, project planning, and teamwork.

### 6.3 Structure of the Internship Program

The internship program was structured into multiple modules with a blend of theory, practical assignments, and interactive sessions. The key components included:

- **AI & Big Data Analytics Module:** Introduction to AI concepts, applications, narrow AI, supervised and unsupervised learning, deep learning basics.
- **Statistical Analysis Module:** Descriptive statistics, regression, correlation, hypothesis testing.
- **BI Tools and Techniques:** Hands-on training using RStudio, Jupyter Notebooks, NumPy, Pandas, Power BI, Tableau, and other BI platforms.
- **Data Handling and Processing:** Data importing, cleaning, normalization, validation, and anomaly detection.
- **Visualization and Reporting:** Crafting effective narratives using data visualizations and statistical summaries.
- **Soft Skills Training:** Communication, workplace collaboration, client engagement, and time management.

## 6.4 Abstract

This internship report presents an overview of the training program I undertook at **Aspire Knowledge and Skills India Pvt. Ltd.**, focusing on the **AI – Business Intelligence Analyst (AIBIA)** course. The internship aimed to provide a comprehensive understanding of Artificial Intelligence and Business Intelligence concepts, tools, and applications through a structured curriculum and hands-on learning.

The program was designed to bridge the gap between theoretical knowledge and practical industry demands. It covered a wide range of topics including the fundamentals of AI, machine learning, big data analytics, statistical analysis, data visualization, and business decision-making. The training involved the use of industry-standard tools such as RStudio, Power BI, Tableau, NumPy, and Pandas, enabling practical exposure to real-time data analytics tasks.

The course was divided into modules that included data preprocessing, statistical methods, data importing, exploration, cleaning, normalization, and visualization techniques. Special emphasis was also placed on workplace readiness skills like effective communication, client handling, teamwork, ethical behavior, and sustainable workplace practices.

Throughout the internship, I engaged in interactive sessions, assignments, and case studies that helped me understand how AI and BI are applied in various business domains. I also gained knowledge of how to derive actionable insights from raw data and communicate those insights effectively to stakeholders.

This report provides a detailed description of the training modules, tools and techniques learned, critical analysis of the internship experience, and the benefits gained. It concludes with reflections on how the internship contributed to my academic and professional growth and prepared me for future opportunities in the IT and data analytics fields.

## 6.5 Acknowledgement

First, I would like to thank **Aspire Knowledge and Skills India Pvt. Ltd.**, for giving me the opportunity to complete an internship through their AI – Business Intelligence Analyst program. I also extend my sincere thanks to all the trainers and staff members at Aspire, who, with their patience and openness, created an enjoyable and enriching learning environment. It is indeed with a great sense of pleasure and immense gratitude that I acknowledge the help and support of these individuals.

My heartfelt gratitude to our seminar in charge **Prof. N. R. Sonawane**, Professor in the Department of Information Technology, for his continuous guidance and support in the preparation of my internship presentation and report.

I would also like to express my sincere appreciation to our respected **Principal, Dr. M. R. Tarambale**, and our **Head of Department, Dr. S. A. Mahajan**, for providing all the necessary facilities and opportunities required to undertake this internship successfully.

Last but not the least, I would like to thank my **parents and friends** for their constant encouragement and unwavering support. With all respect and gratitude, I would like to thank all the people who helped, guided, encouraged, and supported me throughout the duration of my internship—directly or indirectly.

## 6.6 Detailed Description of the Task(s) Assigned / Internship Project Assigned

- ❖ **Department(s):** Data Analytics, Business Intelligence, and Statistical Analysis
- ❖ **Internship Supervisor:** Prof. Vijayalaxmi Kanade ( Lecturer in PVG COET, Pune )
- ❖ **Major Tasks:** As part of the internship program, I was assigned multiple tasks related to understanding, analyzing, and interpreting data using statistical and AI techniques.

The major tasks included:

- Learning the fundamentals of Artificial Intelligence, its impact on business, and differentiating general vs. narrow AI.
- Hands-on practice with **data importing, data cleaning, preprocessing, and normalization**.
- Performing **statistical analysis** using tools like RStudio and Jupyter Notebook — including correlation, regression, and hypothesis testing.
- Creating **interactive dashboards** and **data visualizations** using **Power BI** and **Tableau** to represent meaningful insights.
- Working with Python libraries such as **NumPy** and **Pandas** for data manipulation and exploration.
- Exploring **machine learning concepts**, including supervised vs. unsupervised learning.
- Participating in sessions on **communication skills, project planning, team collaboration, and client relationship management**.
- Understanding how to align data insights with business strategies and present findings effectively.

### ❖ Detailed Descriptions of Different Tools, Techniques and Models Studied During Internship Tenure

During the internship under the AI – Business Intelligence Analyst (AIBIA) program at Aspire Knowledge and Skills, I was exposed to a wide range of tools, statistical techniques, and artificial

intelligence models that are highly relevant in the data analytics and business intelligence industry. Below is a detailed description of what I learned:

### **Tools Studied:**

1. Power BI  
Used for creating dashboards and visual reports from raw data. I learned how to import datasets, clean data, apply filters, create KPIs, and design user-friendly visualizations.
2. Tableau  
Another BI visualization tool used for creating interactive charts and dashboards. I worked with different chart types, calculated fields, and dashboard filters.
3. RStudio  
Introduced for statistical computing and visualization. I learned to use basic functions, libraries like ggplot2, and perform regression, correlation, and hypothesis testing.
4. Jupyter Notebook  
A platform to run Python code. I used it for hands-on learning of machine learning concepts and data preprocessing with libraries like NumPy, Pandas, and Matplotlib.
5. MS Excel  
Used for data manipulation and initial exploration through pivot tables, graphs, and formulas.
6. CRM/Database Tools  
Basic understanding of Customer Relationship Management systems and the role of MySQL and other DBMS tools in storing and managing structured data.

### **Techniques Studied:**

1. Data Cleaning and Preprocessing  
Learned to identify and handle missing values, outliers, and anomalies. Also explored techniques like normalization and validation.
2. Data Visualization  
Created visual stories using Power BI and Tableau. Applied best practices for bar graphs, line charts, pie charts, and KPI visuals.

### 3. Statistical Analysis

Studied descriptive statistics (mean, median, mode), correlation techniques, and regression models to extract trends and relationships in data.

### 4. Hypothesis Testing

Learned how to apply significance testing to determine statistical relationships in business data.

### 5. Data Importing and Exploration

Worked with different file formats like CSV, Excel, and web data sources to import and analyze datasets.

## **Models Studied:**

### 1. Supervised Learning Models

Explored concepts like classification and regression models. Learned the difference between labeled and unlabeled data.

### 2. Unsupervised Learning

Studied clustering techniques and the idea of grouping similar data points without predefined labels.

Throughout the internship, these tools and techniques were practiced through structured assignments and exercises. This combination of theoretical foundation and hands-on implementation provided me with a clear understanding of how data science and business intelligence operate in the real world.



## 7. CRITICAL ANALYSIS

The internship program at **Aspire Knowledge and Skills India Pvt. Ltd.**, under the **AI – Business Intelligence Analyst (AIBIA)** course, provided a comprehensive learning platform for students aiming to build careers in data analytics, AI, and business intelligence. While the program had multiple strengths, there are a few areas where enhancements could further enrich the experience.

### Strengths

#### 1. **Comprehensive Curriculum:**

The program covered a wide range of relevant topics including Artificial Intelligence, machine learning basics, big data analytics, statistical analysis, and business intelligence tools. This broad spectrum helped in understanding both the theoretical and applied aspects of data science.

#### 2. **Tool-Based Learning:**

Interns were given hands-on practice using industry-relevant tools like **Power BI, Tableau, RStudio, Jupyter Notebook, NumPy, and Pandas**. This practical exposure made it easier to relate classroom concepts to real-world use cases.

#### 3. **Application-Oriented Training:**

The internship emphasized working on simulated data scenarios, encouraging interns to clean, preprocess, analyze, and visualize data. Tasks like data normalization, correlation analysis, and generating business insights helped in applying theoretical knowledge effectively.

#### 4. **Soft Skills and Workplace Readiness:**

The program included modules on communication, collaboration, client handling, and ethical workplace behavior. These aspects are often overlooked in technical internships but were rightly included here to promote holistic development.

### Areas for Improvement

#### 1. **Formal Project Work:**

While the program offered conceptual assignments, it lacked a dedicated real-world project with a defined problem statement and deliverables. Introducing a capstone project could give interns an opportunity to consolidate their learning and present it in a structured manner.

2. **Personalized Mentorship:**

Although the sessions were well-structured, one-on-one mentorship or smaller peer groups for deeper discussion would help resolve doubts more effectively and enhance personalized learning.

3. **Live Data Handling Experience:**

Most examples and datasets were pre-structured or simplified. Including more messy, real-time datasets with inconsistencies could better prepare students for actual industry conditions, where data is rarely clean.

4. **Post-Internship Guidance:**

While the course concluded successfully, there was limited follow-up regarding job readiness, resume building, or interview preparation. Incorporating post-internship career sessions or alumni mentoring could greatly benefit students in the transition to the professional world.

## **8. CONCLUSION**

The AI – Business Intelligence Analyst (AIBIA) internship program at Aspire Knowledge and Skills India Pvt. Ltd. was a highly valuable learning experience. It provided me with a practical understanding of Artificial Intelligence, Business Intelligence, and data analytics concepts. The training helped bridge the gap between academic theory and real-world application.

Throughout the internship, I worked with tools like Power BI, Tableau, RStudio, and Jupyter Notebook, which improved my hands-on skills in data visualization, analysis, and reporting. I also learned key concepts like supervised and unsupervised learning, data preprocessing, normalization, and statistical techniques such as regression and hypothesis testing.

In addition to technical knowledge, the course also emphasized soft skills such as communication, teamwork, and professional behavior. These skills are essential for working effectively in any organization.

Overall, the internship enhanced both my technical and analytical thinking skills. It made me more confident in working with data, solving problems, and presenting insights. This experience will definitely help me in future academic projects and prepare me for opportunities in the IT and data science industry.

## 9. References & Sources

- ❖ **Aspire Knowledge and Skills India Pvt. Ltd.** – Official course material and session presentations.  
Website: <https://www.aspireks.com>
- **Power BI Documentation** – Microsoft official documentation for dashboard creation and data visualization.  
Website: <https://learn.microsoft.com/en-us/power-bi/>
- **Tableau Public Resources** – Guides and tutorials on data visualization.  
Website: <https://www.tableau.com/learn/training>
- **RStudio Documentation** – Official documentation and tutorials for statistical analysis using R.  
Website: <https://www.rstudio.com/resources/>
- **Jupyter Notebook** – Tutorials and open-source documentation for data analysis and Python scripting.  
Website: <https://jupyter.org>
- **Python Libraries** – Reference materials for NumPy and Pandas documentation.
  - NumPy: <https://numpy.org/doc/>
  - Pandas: <https://pandas.pydata.org/docs/>
- **Internship Class Notes & Assignments** – Provided during live sessions conducted by Aspire trainers.
- **Online Educational Platforms** (used for supplementary understanding):
  - GeeksforGeeks: <https://www.geeksforgeeks.org>
  - W3Schools: <https://www.w3schools.com>
  - YouTube Channels: Great Learning, Simplilearn, and ProgrammingKnowledge

## 10. Internship Log Book /Attendance Record.

Sr. No.	Date	Theory Expert Speaker(s)	Practical Session	Module(s) Covered
1	1st January 2025	Dr. Minakshi Atre	-	Module 1
2	2nd January 2025	Dr. Minakshi Atre	-	Module 1
3	3rd January 2025	Prof. Sonam Aslekar, Prof. Kanade	-	Modules 9, 10
4	6th January 2025	Prof. Aslekar, Prof. Kanade	-	Modules 9, 10
5	7th January 2025	Dr. Minakshi Atre	-	Module 1
6	8th January 2025	Mr. Anirudh Atre	Yes	Modules 1, 10
7	9th January 2025	Dr. Amruta Kapoor	Yes	Module 14
8	10th January 2025	Mr. Shubham Shidture	Yes	Module 3
9	11th January 2025	Mr. Shubham Shidture	-	Modules 3, 4
10	13th January 2025	Dr. Amruta Kapoor	-	Module 14
11	14th January 2025	Dr. Amruta Kapoor	-	Module 13
12	15th January 2025	Dr. Amruta Kapoor	Yes	Modules 12, 13
13	16th January 2025	Mr. Shidture, Prof. Kanade, Prof. Aslekar	Yes	Modules 4, 9, 14
14	17th January 2025	Dr. Amruta Kapoor	-	Module 12
15	18th January 2025	Mr. Shubham Shidture	-	Modules 4, 5
16	20th January 2025	Mr. Shubham Shidture	-	Module 5
17	21st January 2025	Dr. Amruta Kapoor	-	Module 11
18	22nd January 2025	Dr. Amruta Kapoor	Yes	Modules 11, 15
19	23rd January 2025	Dr. Amruta Kapoor	-	Module 15
20	24th January 2025	Mr. Shubham Shidture	-	Module 5
21	25th January 2025	Mr. Tirthankar Sen	-	Module 2
22	27th January 2025	Mr. Tirthankar Sen	Yes	Modules 2, 6
23	28th January 2025	Mr. Tirthankar Sen	Yes	Modules 6, 7
24	29th January 2025	Mr. Tirthankar Sen	-	Module 7
25	21st February 2025	Mr. Tejas Rane	-	Module 8
26	22nd February 2025	Mr. Tejas Rane	-	Module 8

## 11. ANNEXURE





