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| --- | --- | --- | --- | --- | --- | --- |
| **GOOGLE DATA ANALYTICS PROFESSIONAL CERTIFICATE** | | | | | | |
| **A. INTRODUCTION TO DATA ANALYTICS** |  |  |  |  |  | | |  | |  | |
| **1. WIDE USE =** COMPANIES IN E-COMMERCE, ENTERTAINMENT, MANUFACTURING, HEALTHCARE, MARKETING, FINANCE, |  |  |  |  |  | | |  | |  | |
| TECH AND ALL OTHERS INDUSTRIES USE DATA . AS DATA ANALYSIS HELP THEM TO IMPROVE THEIR PROCESSES, |  |  |  |  |  |  | | |  | |
| IDENTIFY OPPERTUNITIES AND TRENDS, LAUNCH NEW PRODUCTS , GREAT CUSTOMER SERVICE, TAKING CORRECT DECISIONS. |  |  |  |  |  |  | |  |
| **2. DATA =** COLLECTION OF FACTS |  |  |  |  |  |  | |  |
| THIS COLLECTION CAN INCLUDE NUMBERS, PICTURES, VIDEOS, WORDS, MEASUREMENT, OBSERVATIONs AND MORE. |  |  |  |  |  |  | |  |
| **3. DATA ANALYSIS =** COLLECTION, TRNSFORMATION AND ORGANIZATION OF DATA IN ORDER TO DRAW CONCLUTIONS |  |  |  |  |  |  | |  |
| MAKE PREDICTIONS AND DRIVE INFORMED DECISION MAKING |  |  |  |  |  |  | |  |
| DATA EVOLVES OVER TIME SO THIS ANALYSIS CAN GIVE US NEW INFORMATION FOR THE ENTIRE LIFE CYCLE. |  |  |  |  |  |  | |  |
| DATA IS EVERYWHERE WE CREATE AND USE DATA EVERY DAY. |  |  |  |  |  |  | |  |
| WHEN WE SEARCH USE OF A PRODUCT BEFORE PURCHASING IT THAT IS DATA ANALYSIS. |  |  |  |  |  |  | |  |
| MAY BE YOU ARE A FITNESS TRACKER TO COUNT YOUR STEPS TO KNOW ACTIVENESS |  |  |  |  |  |  | |  |
| THROUGH OUT THE DAY THAT IS DATA ANALYSIS. |  |  |  |  |  |  | |  |
| **4. CREATING DATA -** SO WE ARE NOT ONLY USING DATA WE ARE CREATING DATA EVERY MUNITE, ANYTIME WE USE OUR , |  |  |  |  |  |  | |  |
| PHONE , LOOK UP SOMETHING ONLINE STREAM MUSIC, SHOP WITH CREDIT CARD, POST ON SOCIAL MEDIA, USE GPS |  |  |  |  |  |  | |  |
| WE ARE CREATING DATA. |  |  |  |  |  |  | |  |
| **5. DATA SOURCE -** DIGITAL WORLD CONTAINS MANY DEVICES MAKES THE AMOUNT OF DATA AVAILABLE SMOOTHLY. |  |  |  |  |  |  | |  |
| GOOGLE PROCESS MORE THAN 40,000 SEARCHES EVERY SCEOND THAT IS 3.5 BILLION SEARCHES A DAY |  |  |  |  |  |  | |  |
| THAT IS 1.2 TRILLION SEARCHES EVERY YEAR |  |  |  |  |  |  | |  |
| YOUTUBE HAS 2 BILLION USERS IF YOUTUBE USERS MADE A COUNTRY IT WILL BE THE LARGEST IN THE WORLD |  |  |  |  |  |  | |  |
| ALL THAT DATA IS TRANSFORING THE WORLD ARROUND US THE ECONOMIST AND PUBLICATIONS RECENTLY |  |  |  |  |  |  | |  |
| CALLED DATA WORLDS VALUABLE RESOURCES. |  |  |  |  |  |  | |  |
| **6. ANALYST WORK -** SO DATA ANALYST ARE VALUABLE FOR THEIR ORGANIZATIONS. |  |  |  |  |  |  | |  |
| BUT WHAT EXACTLY A DATA ANALYST DO - |  |  |  |  |  |  | |  |
| DATA ANALYST IS SOMEONE WHO COLLECTS, TRANSFORMS AND ORGANIZES DATA IN ORDER TO HELP MAKE |  |  |  |  |  |  | |  |
| INFORMED DECISIONS. |  |  |  |  |  |  | |  |
| **7. DIFFERENT PROCESS -** OF DATA ANALYSIS - ASK, PEPARE, PROCESS, ANALYZE, SHARE, ACT . |  |  |  |  |  |  | |  |
| **B. COURSE OBJECT** |  |  |  |  |
| **1. FOUNDATIONS** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. REAL-LIFE ROLES AND RESPONSIBILITIES OF A JUNIOR DATA ANALYST |  |  |  |  |  |  | |  |
| 2. HOW BUSINESSES TRANSFORM DATA INTO ACTIONABLE INSIGHTS |  |  |  |  |  |  | |  |
| 3. SPREADSHEET BASICS |  |  |  |  |  |  | |  |
| 4. DATABASE AND QUERY BASICS |  |  |  |  |  |  | |  |
| 5. DATA VISUALIZATION BASICS |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. USING DATA IN EVERYDAY LIFE |  |  |  |  |  |  | |  |
| 2. THINKING ANALYTICALLY |  |  |  |  |  |  | |  |
| 3. APPLYING TOOLS FROM THE DATA ANALYTICS TOOLKIT |  |  |  |  |  |  | |  |
| 4. SHOWING TRENDS AND PATTERNS WITH DATA VISUALIZATIONS |  |  |  |  |  |  | |  |
| 5. ENSURING YOUR DATA ANALYSIS IS FAIR |  |  |  |  |  |  | |  |
| **2. ASK** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. HOW DATA ANALYSTS SOLVE PROBLEMS WITH DATA |  |  |  |  |  |  | |  |
| 2. THE USE OF ANALYTICS FOR MAKING DATA-DRIVEN DECISIONS |  |  |  |  |  |  | |  |
| 3. SPREADSHEET FORMULAS AND FUNCTIONS |  |  |  |  |  |  | |  |
| 4. DASHBOARD BASICS, INCLUDING AN INTRODUCTION TO TABLEAU |  |  |  |  |  |  | |  |
| 5. DATA REPORTING BASICS |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. ASKING SMART AND EFFECTIVE QUESTIONS |  |  |  |  |  |  | |  |
| 2. STRUCTURING HOW YOU THINK |  |  |  |  |  |  | |  |
| 3. SUMMARIZING DATA |  |  |  |  |  |  | |  |
| 4. PUTTING THINGS INTO CONTEXT |  |  |  |  |  |  | |  |
| 5. MANAGING TEAM AND STAKEHOLDER EXPECTATIONS |  |  |  |  |  |  | |  |
| 6. PROBLEM-SOLVING AND CONFLICT-RESOLUTION |  |  |  |  |  |  | |  |
| **3. PREPARE** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. HOW DATA IS GENERATED |  |  |  |  |  |  | |  |
| 2. FEATURES OF DIFFERENT DATA TYPES, FIELDS, AND VALUES |  |  |  |  |  |  | |  |
| 3. DATABASE STRUCTURES |  |  |  |  |  |  | |  |
| 4. THE FUNCTION OF METADATA IN DATA ANALYTICS |  |  |  |  |  |  | |  |
| 5. STRUCTURED QUERY LANGUAGE (SQL) FUNCTIONS |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. ENSURING ETHICAL DATA ANALYSIS PRACTICES |  |  |  |  |  |  | |  |
| 2. ADDRESSING ISSUES OF BIAS AND CREDIBILITY |  |  |  |  |  |  | |  |
| 3. ACCESSING DATABASES AND IMPORTING DATA |  |  |  |  |  |  | |  |
| 4. WRITING SIMPLE QUERIES |  |  |  |  |  |  | |  |
| 5. ORGANIZING AND PROTECTING DATA |  |  |  |  |  |  | |  |
| 6. CONNECTING WITH THE DATA COMMUNITY (OPTIONAL) |  |  |  |  |  |  | |  |
| **4. PROCESS** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. DATA INTEGRITY AND THE IMPORTANCE OF CLEAN DATA |  |  |  |  |  |  | |  |
| 2. THE TOOLS AND PROCESSES USED BY DATA ANALYSTS TO CLEAN DATA |  |  |  |  |  |  | |  |
| 3. DATA-CLEANING VERIFICATION AND REPORTS |  |  |  |  |  |  | |  |
| 4. STATISTICS, HYPOTHESIS TESTING, AND MARGIN OF ERROR |  |  |  |  |  |  | |  |
| 5. RESUME BUILDING AND INTERPRETATION OF JOB POSTINGS (OPTIONAL) |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. CONNECTING BUSINESS OBJECTIVES TO DATA ANALYSIS |  |  |  |  |  |  | |  |
| 2. IDENTIFYING CLEAN AND DIRTY DATA |  |  |  |  |  |  | |  |
| 3. CLEANING SMALL DATASETS USING SPREADSHEET TOOLS |  |  |  |  |  |  | |  |
| 4. CLEANING LARGE DATASETS BY WRITING SQL QUERIES |  |  |  |  |  |  | |  |
| 5. DOCUMENTING DATA-CLEANING PROCESSES |  |  |  |  |  |  | |  |
| **5. ANALYZE** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. STEPS DATA ANALYSTS TAKE TO ORGANIZE DATA |  |  |  |  |  |  | |  |
| 2. HOW TO COMBINE DATA FROM MULTIPLE SOURCES |  |  |  |  |  |  | |  |
| 3. SPREADSHEET CALCULATIONS AND PIVOT TABLES |  |  |  |  |  |  | |  |
| 4. SQL CALCULATIONS |  |  |  |  |  |  | |  |
| 5. TEMPORARY TABLES |  |  |  |  |  |  | |  |
| 6. DATA VALIDATION |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. SORTING DATA IN SPREADSHEETS AND BY WRITING SQL QUERIES |  |  |  |  |  |  | |  |
| 2. FILTERING DATA IN SPREADSHEETS AND BY WRITING SQL QUERIES |  |  |  |  |  |  | |  |
| 3. CONVERTING DATA |  |  |  |  |  |  | |  |
| 4. FORMATTING DATA |  |  |  |  |  |  | |  |
| 5. SUBSTANTIATING DATA ANALYSIS PROCESSES |  |  |  |  |  |  | |  |
| 6. SEEKING FEEDBACK AND SUPPORT FROM OTHERS DURING DATA ANALYSIS |  |  |  |  |  |  | |  |
| **6. SHARE** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. DESIGN THINKING |  |  |  |  |  |  | |  |
| 2. HOW DATA ANALYSTS USE VISUALIZATIONS TO COMMUNICATE ABOUT DATA |  |  |  |  |  |  | |  |
| 3. THE BENEFITS OF TABLEAU FOR PRESENTING DATA ANALYSIS FINDINGS |  |  |  |  |  |  | |  |
| 4. DATA-DRIVEN STORYTELLING |  |  |  |  |  |  | |  |
| 5. DASHBOARDS AND DASHBOARD FILTERS |  |  |  |  |  |  | |  |
| 6. STRATEGIES FOR CREATING AN EFFECTIVE DATA PRESENTATION |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. CREATING VISUALIZATIONS AND DASHBOARDS IN TABLEAU |  |  |  |  |  |  | |  |
| 2. ADDRESSING ACCESSIBILITY ISSUES WHEN COMMUNICATING ABOUT DATA |  |  |  |  |  |  | |  |
| 3. UNDERSTANDING THE PURPOSE OF DIFFERENT BUSINESS COMMUNICATION TOOLS |  |  |  |  |  |  | |  |
| 4. TELLING A DATA-DRIVEN STORY |  |  |  |  |  |  | |  |
| 5. PRESENTING TO OTHERS ABOUT DATA |  |  |  |  |  |  | |  |
| 6. ANSWERING QUESTIONS ABOUT DATA |  |  |  |  |  |  | |  |
| **7. ACT** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| 1. PROGRAMMING LANGUAGES AND ENVIRONMENTS |  |  |  |  |  |  | |  |
| 2. R PACKAGES |  |  |  |  |  |  | |  |
| 3. R FUNCTIONS, VARIABLES, DATA TYPES, PIPES, AND VECTORS |  |  |  |  |  |  | |  |
| 4. R DATA FRAMES |  |  |  |  |  |  | |  |
| 5. BIAS AND CREDIBILITY IN R |  |  |  |  |  |  | |  |
| 6. R VISUALIZATION TOOLS |  |  |  |  |  |  | |  |
| 7. R MARKDOWN FOR DOCUMENTATION, CREATING STRUCTURE, AND EMPHASIS |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| 1. CODING IN R |  |  |  |  |  |  | |  |
| 2. WRITING FUNCTIONS IN R |  |  |  |  |  |  | |  |
| 3. ACCESSING DATA IN R |  |  |  |  |  |  | |  |
| 4. CLEANING DATA IN R |  |  |  |  |  |  | |  |
| 5. GENERATING DATA VISUALIZATIONS IN R |  |  |  |  |  |  | |  |
| 6. REPORTING ON DATA ANALYSIS TO STAKEHOLDERS |  |  |  |  |  |  | |  |
| **8. CAPSTONE** |  |  |  |  |  |  | |  |
| **WHAT YOU WILL LEARN:** |  |  |  |  |  |  | |  |
| HOW A DATA ANALYTICS PORTFOLIO DISTINGUISHES YOU FROM OTHER CANDIDATES |  |  |  |  |  |  | |  |
| PRACTICAL, REAL-WORLD PROBLEM-SOLVING |  |  |  |  |  |  | |  |
| STRATEGIES FOR EXTRACTING INSIGHTS FROM DATA |  |  |  |  |  |  | |  |
| CLEAR PRESENTATION OF DATA FINDINGS |  |  |  |  |  |  | |  |
| MOTIVATION AND ABILITY TO TAKE INITIATIVE |  |  |  |  |  |  | |  |
| **SKILL SETS YOU WILL BUILD:** |  |  |  |  |  |  | |  |
| BUILDING A PORTFOLIO |  |  |  |  |  |  | |  |
| INCREASING YOUR EMPLOYABILITY |  |  |  |  |  |  | |  |
| SHOWCASING YOUR DATA ANALYTICS KNOWLEDGE, SKILL, AND TECHNICAL EXPERTISE |  |  |  |  |  |  | |  |
| SHARING YOUR WORK DURING AN INTERVIEW |  |  |  |  |  |  | |  |
| COMMUNICATING YOUR UNIQUE VALUE PROPOSITION TO A POTENTIAL EMPLOYER |  |  |  |  |  |  | |  |
| **C. LEARNINGS** |  |  |  |  |  |  | |  |
| **1. I​NTRODUCING DATA ANALYTICS:** DATA HELPS US MAKE DECISIONS, IN EVERYDAY LIFE AND IN BUSINESS. |  |  |  |  |  |  | |  |
| KNOW HOW DATA ANALYSTS USE TOOLS TO TAKE A FORM DECISION. |  |  |  |  |  |  | |  |
| **2. T​HINKING ANALYTICALLY:** |  |  |  |  |  |  | |  |
| YOU WILL LEARN ABOUT SOME OF THESE ROLES AND THE KEY SKILLS THAT ARE REQUIRED |  |  |  |  |  |  | |  |
| FOR DATA ANALYSTS . YOU WILL ALSO EXPLORE ANALYTICAL THINKING |  |  |  |  |  |  | |  |
| AND HOW IT RELATES TO DATA-DRIVEN DECISION MAKING. |  |  |  |  |  |  | |  |
| **3. E​XPLORING THE WONDERFUL WORLD OF DATA:** DATA HAS ITS OWN LIFE CYCLE, |  |  |  |  |  |  | |  |
| AND DATA ANALYSTS USE AN ANALYSIS PROCESS THAT CUTS ACROSS AND LEVERAGES THIS LIFE CYCLE. |  |  |  |  |  |  | |  |
| THERE ARE SEVERAL APPLICATIONS THAT HELP GUIDE DATA THROUGH THE DATA ANALYSIS PROCESS. |  |  |  |  |  |  | |  |
| **4. S​ETTING UP A DATA TOOLBOX:** SPREADSHEETS, QUERY LANGUAGES, |  |  |  |  |  |  | |  |
| AND DATA VISUALIZATION TOOLS ARE ALL A BIG PART OF A DATA ANALYST’S JOB. |  |  |  |  |  |  | |  |
| **5. D​ISCOVERING DATA CAREER POSSIBILITIES:** ALL KINDS OF BUSINESSES VALUE |  |  |  |  |  |  | |  |
| THE WORK THAT DATA ANALYSTS DO. YOU HAVE TO EXAMINE |  |  |  |  |  |  | |  |
| DIFFERENT TYPES OF BUSINESSES AND THE JOBS AND TASKS THAT ANALYSTS DO FOR THEM. |  |  |  |  |  |  | |  |
| **D. DATA IN DAILY LIFE -** |  |  |  |  |  |  | |  |
| THERE ARE 5 QUESTIONS - ABOUT YOUR DAILY LIFE YOU HAVE TO ANSWER THEM ANALYTICALLY - LIKE - |  |  |  |  |  |  | |  |
| WHAT ARE SOME CONSIDERATIONS OR PREFERENCES YOU WANT TO KEEP IN MIND |  |  |  |  |  |  | |  |
| WHEN MAKING A DECISION? |  |  |  |  |  |  | |  |
| WHAT KIND OF INFORMATION OR DATA DO YOU HAVE ACCESS TO THAT WILL INFLUENCE |  |  |  |  |  |  | |  |
| YOUR DECISION? |  |  |  |  |  |  | |  |
| ARE THERE ANY OTHER THINGS YOU MIGHT WANT TO TRACK ASSOCIATED WITH THIS |  |  |  |  |  |  | |  |
| DECISION? |  |  |  |  |  |  | |  |
| **WHAT’S THE BEST TIME TO GO TO THE GYM?** |  |  |  |  |  |  | |  |
| ANSWER IS MORNING BUT I DIDNT DO JIMMING. |  |  |  |  |  |  | |  |
| PAIN, NOT ESSENTIAL, LIFE CAN GO WITHOUT JIM, SIMPLE YOGA EXCERCISE CAN FILL THE GAP. |  |  |  |  |  |  | |  |
| **HOW DOES THE LENGTH OF YOUR COMMUTE TO WORK VARY BY DAY OF THE WEEK?** |  |  |  |  |  |  | |  |
| 2-3 DAYS PER WEEK, LATE WAKE UP, NON AVAILABILITY OF PARTULAR COMUTE. |  |  |  |  |  |  | |  |
| **HOW MANY CUPS OF COFFEE DO YOU DRINK EACH DAY?** |  |  |  |  |  |  | |  |
| 5 CUPS. I LIKE TEA, AS I LIKE CIGGERATE, IT HELP IN MY STOOLS. STOP HEADACHES |  |  |  |  |  |  | |  |
| **WHAT FLAVOR OF ICE CREAM DO CUSTOMERS BUY?** |  |  |  |  |  |  | |  |
| I LIKE CATBURRY. ALSO I HAVE SEEN MANY PEOPLE LIKE CATBURRY. TESTE, GETTING EXTRA THAN VANILA OR OTHERS |  |  |  |  |  |  | |  |
| **HOW MANY HOURS OF SLEEP DO YOU GET EACH DAY?** |  |  |  |  |  |  | |  |
| 7-8 HOURS. OTHERWISE I HAVE HEADACHE AND LEATHERGY |  |  |  |  |  |  | |  |
| **E. SCOPE** |  |  |  |  |  |  | |  |
| SHERLOK HOMES SAID " DATA DATA DATA - I CANT MAKE BRICS WITHOUT CLAY" |  |  |  |  |  |  | |  |
| HE WANT TO TELL THAT HE CANT ABLE TO COME TO A CONCLUTION (BRICS) WITHOUT DATA (CLAY). |  |  |  |  |  |  | |  |
| EVERY DAY, THE AMOUNT OF DATA OUT THERE GETS BIGGER AND BIGGER. SO THE ABILITY TO INTERPRET |  |  |  |  |  |  | |  |
| IT EFFECTIVELY IS MORE IMPORTANT THAN EVER BEFORE. DATA ANALYTICS IS BECOMING ONE OF |  |  |  |  |  |  | |  |
| THE FASTEST-GROWING AND MOST REWARDING CAREER CHOICES IN THE WORLD. IN THE NEXT DECADE, |  |  |  |  |  |  | |  |
| THE DEMAND FOR BUSINESS ANALYTICS SKILLS WILL PROBABLY BE HIGHER THAN THE DEMAND FOR ANY |  |  |  |  |  |  | |  |
| OTHER CAREER (10.9% VS. 5.2%) (SOURCE: BUREAU OF LABOR STATISTICS). ALL KINDS OF COMPANIES |  |  |  |  |  |  | |  |
| ALL OVER THE WORLD NEED QUALIFIED DATA ANALYSTS TO SOLVE PROBLEMS AND HELP THEM MAKE THE BEST |  |  |  |  |  |  | |  |
| POSSIBLE BUSINESS DECISIONS. AND RIGHT NOW, FIFTY-NINE PERCENT OF COMPANIES HAVE PLANS |  |  |  |  |  |  | |  |
| TO ADD EVEN MORE POSITIONS REQUIRING DATA ANALYSIS SKILLS (SOURCE: SHRM). BY THE TIME YOU ARE DONE |  |  |  |  |  |  | |  |
| WITH THIS PROGRAM, YOU WILL BE WELL-PREPARED TO MAKE SMART, STRATEGIC, DATA-DRIVEN RECOMMENDATIONS |  |  |  |  |  |  | |  |
| FOR ORGANIZATIONS IN ALL KINDS OF INDUSTRIES. |  |  |  |  |  |  | |  |
| DURING EACH COURSE OF THE PROGRAM, YOU WILL COMPLETE LOTS OF HANDS-ON ASSIGNMENTS AND |  |  |  |  |  |  | |  |
| PROJECTS BASED ON BOTH DAY-TO-DAY LIFE AND THE PRACTICAL ACTIVITIES OF A DATA ANALYST. ALONG THE WAY, |  |  |  |  |  |  | |  |
| YOU WILL LEARN HOW TO ASK THE RIGHT QUESTIONS AND UNDERSTAND OBJECTIVES. YOU WILL ALSO LEARN |  |  |  |  |  |  | |  |
| HOW TO EFFECTIVELY CLEAN AND ORGANIZE LARGE AMOUNTS OF DATA TO MAKE IT READY FOR HIGH-QUALITY ANALYSIS. |  |  |  |  |  |  | |  |
| ON TOP OF THAT, YOU WILL GET HANDS-ON EXPERIENCE USING ALL KINDS OF TOOLS AND TECHNIQUES |  |  |  |  |  |  | |  |
| THAT WILL HELP YOU RECOGNIZE PATTERNS AND UNCOVER RELATIONSHIPS BETWEEN DATA POINTS. AND TO HELP |  |  |  |  |  |  | |  |
| YOU COMMUNICATE THE RESULTS OF YOUR ANALYSIS, YOU WILL LEARN HOW TO DESIGN VISUALS AND DASHBOARDS. |  |  |  |  |  |  | |  |
| THERE IS EVEN AN OPPORTUNITY TO CREATE A CASE STUDY, WHICH YOU CAN HIGHLIGHT IN YOUR RESUME |  |  |  |  |  |  | |  |
| TO SHOW WHAT YOU HAVE LEARNED TO POTENTIAL EMPLOYERS. |  |  |  |  |  |  | |  |

**1.**

**Question 1**

A clothing retailer collects and stores data about its sales revenue. Which of the following would be part of its data ecosystem? Select all that apply.

**0.5 / 1 point**



Records of its inventory

**Correct**

The clothing retailer’s data ecosystem would include the database of sales revenue, the cloud that stores the database, and records of its inventory. A data ecosystem is the various elements that interact with one another in order to produce, manage, store, organize, analyze, and share data.



The databases of competing retailers



The database of sales revenue



The cloud that store its database

You didn’t select all the correct answers

**2.**

**Question 2**

What is the process of guiding business strategy using facts?

**1 / 1 point**



Identification of data and decisions



Data-driven decision-making



Analytical planning



Strategic improvement

**Correct**

Data-driven decision-making is the process of guiding business strategy using facts.

**3.**

**Question 3**

Fill in the blank: Curiosity, understanding context, having a technical mindset, data design, and data strategy are \_\_\_\_\_. They enable data analysts to solve problems using facts.

**1 / 1 point**



thought processes



analytical skills



personal insights



business skills

**Correct**

Curiosity, understanding context, having a technical mindset, data design, and data strategy are analytical skills. They enable data analysts to solve problems using facts.

**4.**

**Question 4**

The owner of a skate shop notices that every time a certain employee has a shift, there are higher sales numbers at the end of the day. After some investigation, the owner realizes that since the employee was hired, the store earns 15% more each month. In this scenario, the manager used which quality of analytical thinking?

**1 / 1 point**



Problem-orientation



Big-picture thinking



Visualization



Correlation

**Correct**

The owner used correlation, which involves being able to identify a relationship between two or more pieces of data. They noticed that there is a correlation between the employee’s presence and the skate shop’s traffic and monthly income.

**5.**

**Question 5**

Gap analysis is a process that could help accomplish which of the following tasks? Select all that apply.

**0.75 / 1 point**



Improve accessibility for an educational app based on its current functionality

**Correct**

Gap analysis is a method for examining and evaluating how a process works currently in order to get where you want to be in the future. Improving accessibility, increasing efficiency, and reducing carbon emissions are examples of improvements that gap analysis can help accomplish.



Increase the efficiency of a car manufacturer based on its current assembly process

**Correct**

Gap analysis is a method for examining and evaluating how a process works currently in order to get where you want to be in the future. Improving accessibility, increasing efficiency, and reducing carbon emissions are examples of improvements that gap analysis can help accomplish.



Reduce a company’s carbon footprint based on its current emissions

**Correct**

Gap analysis is a method for examining and evaluating how a process works currently in order to get where you want to be in the future. Improving accessibility, increasing efficiency, and reducing carbon emissions are examples of improvements that gap analysis can help accomplish.



Spread awareness about income inequality based on local salaries

**This should not be selected**

You will learn more about analytical thinking in Course 1.

**6.**

**Question 6**

An advertising firm has used insights from its analytics team to create a strategy for improving sales. Now, they implement a plan to increase annual revenue. The firm is at which step of the data analysis process?

**1 / 1 point**



Analyze



Act



Process



Share

**Correct**

The act phase is when insights are put into action. This involves a company or organization implementing a plan to solve the original business problem.

**7.**

**Question 7**

A data analyst adds descriptive headers to columns of data in a spreadsheet. How does this improve the spreadsheet?

**0 / 1 point**



It clarifies the business strategy



It improves the aesthetic appeal



It adds context



It eliminates unnecessary details

**Incorrect**

You will learn more about analytical processes in Course 1.

**8.**

**Question 8**

This is a selection from a spreadsheet that ranks the 10 most populous cities in North Carolina. To alphabetize the county names in column D, which spreadsheet tool would you use?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | B | C | D |
| 1 | **Rank** | **Name** | **Population** | **County** |
| 2 | 7 | Cary | 170,282 | Wake, Chatham |
| 3 | 1 | Charlotte | 885,708 | Mecklenburg |
| 4 | 10 | Concord | 96,341 | Cabarrus |
| 5 | 4 | Durham | 278,993 | Durham (seat), Wake, Orange |
| 6 | 6 | Fayetteville | 211,657 | Cumberland |
| 7 | 3 | Greensboro | 296,710 | Guilford |
| 8 | 9 | High Point | 112,791 | Guilford, Randolph, Davidson, Forsyth |
| 9 | 2 | Raleigh | 474,069 | Wake (seat), Durham |
| 10 | 8 | Wilmington | 123,784 | New Hanover |
| 11 | 5 | Winston-Salem | 247,945 | Forsyth |

**0 / 1 point**



Alphabetize range



Organize range



Sort range



Name range

**Incorrect**

You will learn more about spreadsheet basics in Course 1.

**9.**

**Question 9**

You are querying a database of manufacturing company suppliers. The column name for supplier identification numbers is supplier\_id. What is the correct clause to retrieve only data about the supplier with identification number 85317?

**0 / 1 point**



WHERE supplier\_id = 85317



FROM supplier\_id 85317



SELECT supplier\_id 85317



COLUMN supplier\_id = 85317

**Incorrect**

You will learn more about queries in Course 1.

**10.**

**Question 10**

Imagine you are sharing your data with a company stakeholder. Why might you display data with a data visualization instead of a table? Select all that apply.

**0.75 / 1 point**



It helps them identify trends more quickly

**Correct**

When sharing data with others, you might use a data visualization instead of a table because visualizations are more aesthetically pleasing, save time when identifying trends, and are easier to understand.



It thoroughly describes each data point

**This should not be selected**

You will learn more about data visualization in Course 1.



It’s aesthetically pleasing

**Correct**

When sharing data with others, you might use a data visualization instead of a table because visualizations are more aesthetically pleasing, save time when identifying trends, and are easier to understand.



It’s easy to understand

**Correct**

When sharing data with others, you might use a data visualization instead of a table because visualizations are more aesthetically pleasing, save time when identifying trends, and are easier to understand.