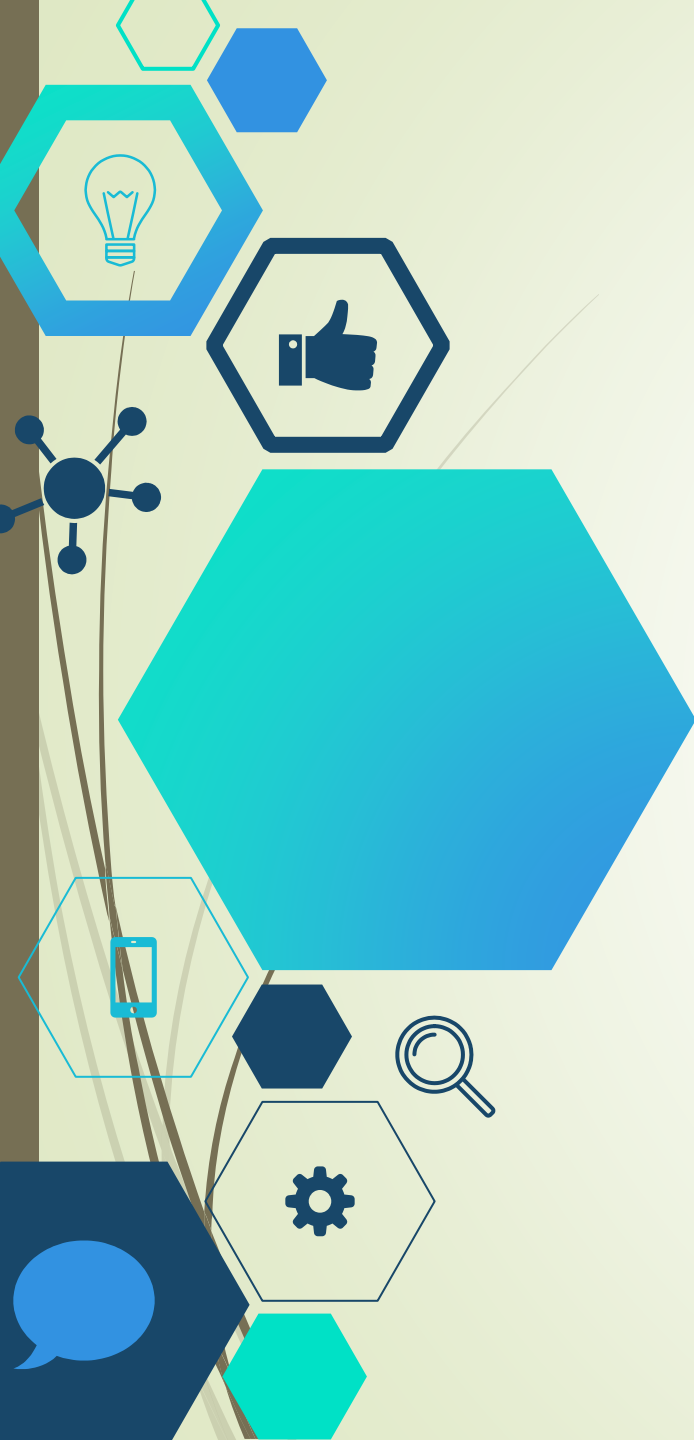




Good Morning 😊





Let us pray



DAILY GOSPEL

**November 09, 2023 - Feast of the
Dedication of the Lateran Basilica in Rome**

Reflect

John 2:13-22

13 The Passover of the Jews was at hand, and Jesus went up to Jerusalem. 14 In the temple he found those who were selling oxen and sheep and pigeons, and the money-changers at their business. 15 And making a whip of cords, he drove them all, with the sheep and oxen, out of the temple; and he poured out the coins of the money changers and overturned their tables. 16 And he told those who sold the pigeons, "Take these things away; you shall not make my Father's house a house of trade." 17 His disciples remembered that it was written, "Zeal for your house will consume me." 18 The Jews then said to him, "What sign have you to show us for doing this?" 19 Jesus answered them, "Destroy this temple, and in three days I will raise it up." 20 The Jews then said, "It has taken forty-six years to build this temple, and will you raise it up in three days?" 21 But he spoke of the temple of his body. 22 When therefore he was raised from the dead, his disciples remembered that he had said this; and they believed the Scripture and the word which Jesus had spoken.


**Take these things
away; you shall not
make my Father's
house a house of
trade.**

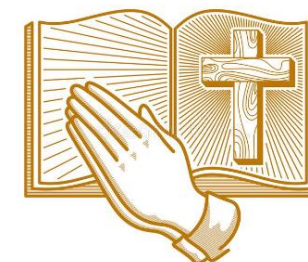
Pray

Lord Jesus Christ, you open wide the door of your Father's house and you bid us to enter confidently that we may worship in spirit and truth. Help me to draw near to your throne of mercy with gratitude and joy. Amen.

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Inspired by today's Gospel? Prayer requests?
Share your reflections or send prayer requests.

DM us @  DlsuDCampusMinistry
or cmo@dlsud.edu.ph



Personal Prayer:

St. John Baptist De La Salle – Pray for us

Live Jesus in our hearts -- Forever



Week 13 – November 9, 2022





Module 3

IT Professionals



Learning Outcomes:

- *At the end of this module, students will be able to:*
 - Explain the roles and responsibilities of IT professional.
 - Understand the necessary skills to become a successful IT professional.



Outline

- Define IT Professional
- Types of IT Jobs
- 7 most influential computer programmers
- IT Skills
- Jobs in Computer Science
- Qualifications and skills



What is Information Technology Professional?

- Responsible for helping organizations maintain their digital infrastructure and providing troubleshooting assistance to technology consumers.
- IT employees are in demand to help others keep up with technological advances and security procedures.

Types of Information Technology Jobs



1. Computer Support Specialist

Primary Duties	Requirements
<ul style="list-style-type: none">✓ Responsible for viewing and solving computer network and hardware for a business.✓ They can work in a variety of industries to provide general support to a company's employees, or they can work at a technology of software as a service (SaaS)	<ul style="list-style-type: none">✓ Typically obtain a Bachelor's Degree in Computer Science or Information Technology.✓ Having a certificate or an associate degree paired with relevant professional experience may also be acceptable.



2. Computer Programmer

Primary Duties

- ✓ use languages such as Python or C++ to write the code that instructs computers and software programs how to function.
- ✓ They test applications and programs to check whether they produce the desired results.

Requirements

- ✓ A programmer typically completes a Bachelor's Degree in Computer Science and an internship to build their skills.
- ✓ Certifications are also strongly encouraged, and there are many coding academies to choose from.



3. Web Developer

Primary Duties

- ✓ Design the appearance, navigation and content organization of a website.
- ✓ They use coding languages such as HTML, CSS and JavaScript to manage graphics, applications and content that address a client's needs.

Requirements

- ✓ Many web developers earn an Associate Degree in Web Development or another relevant IT field.
- ✓ Some may pursue a Bachelor's Degree in IT or another business field.
- ✓ Others may develop their web design skills through certificate programs or self-paced learning.

A Day in the Life of a Web Developer

Build user interfaces and prototypes from wireframes and designs



Code and deploy applications in a cross-platform, cross-browser environment



Build products using HTML/CSS/JS



Update current websites to meet modern web standards

the balance



4. Systems Analyst

Primary Duties

- ✓ Responsible for problem researching, finding solutions, recommending courses of actions and coordinating within the company.
- ✓ Reviews design components and uses their knowledge of information technology to solve business problems.
- ✓ They identify ways that infrastructure needs to change to streamline business and IT

Requirements

- ✓ A Bachelor's Degree in Computer Science or a related field is often required.
- ✓ Coursework in business administration, management and finance may help these professionals better apply their IT knowledge to improving business practices.



5. Network Engineer

Primary Duties

- ✓ Work on the day-to-day maintenance and development of a company's computer network, utilizing their skills to make the network available and efficient for all employees within an organization.



Requirements

- ✓ These professionals typically need a Bachelor's Degree in Computer Science and Information Systems to understand the functions of a network and become familiar with potential solutions needed to maintain one.
- ✓ Some employers may also require a Master of Business Administration (MBA) for those who work with other internal stakeholders of the organization to determine the best technology practices.

6. Database Administrator

Primary Duties


- ✓ Database administrators employ specialized software to organize and keep track of data.
- ✓ The software can be associated with software configuration, security and performance when applicable.
- ✓ These professionals frequently diagnose and solve complex IT issues related to the data infrastructure to ensure an organization's data is safe, accessible and easy to navigate.

Requirements

- ✓ Database administrators typically need to earn a Bachelor's Degree in Computer Science or Management Information Systems.
- ✓ They often start as a database analyst or a developer before moving into this role so they can get the experience in data collection



7. Software Engineer

Primary Duties	Requirements
<ul style="list-style-type: none">✓ Apply their knowledge of mathematics and computer science to create and improve new software.✓ They may work on enterprise applications, operating systems and network control systems, which are all examples of software that can be used to help businesses scale their IT infrastructure.✓ Different types: front-end, back-end, full-stack, QA engineer, security engineer.	<ul style="list-style-type: none">✓ Most computer scientists need both a bachelor's and a master's degree to become experts in software development and maintenance.✓ They learn and practice skills in technical problem-solving, diagnosis, troubleshooting and programming languages. 

8. IT Security Specialist

Primary Duties

- ✓ Work in various industries to build and maintain digital protective measures on intellectual property and data that belong to an organization.
- ✓ They help companies create contingency plans in case information gets hacked from their networks and servers.
- ✓ These professionals also create strategies to troubleshoot problems as they arise.

Requirements

- ✓ A bachelor's degree or professional certification is often required.
- ✓ Courses may involve math, programming and operating systems and certifications offered by the Information Systems Security Certification Consortium (ISC2).



9. Data Scientist

Primary Duties

- ✓ A data scientist analyzes and organizes data to determine trends that can influence business decisions.
- ✓ Their methods and IT tools use statistics and machine learning to help collect and process a company's data such as financial records, sales, prospects and lead generation.
- ✓ Some duties vary for specific industries. For example, data scientists in the healthcare industry keep electronic health records (EHRs) intact for hospitals to have access to confidential medical information.

Requirements

- ✓ Many of these professionals choose to pursue both a Bachelor's and a Master's Degree in IT or other business fields.
- ✓ Some pursue additional degrees, coursework and certifications that relate to their specific industry, such as healthcare.

How to Become a Data Scientist?



Skills Required-

Statistics



01

Programming Skills



02

Machine Learning



03

Data Management



04

Communication Skills



05

10. IT Technician

Primary Duties

- ✓ An IT technician collaborates with support specialists to analyze and diagnose computer issues.
- ✓ They also monitor processing functions, install relevant software and perform tests on computer equipment and applications when necessary.
- ✓ They may also train a company's employees, clients and other users on a new program or function as well.

Requirements

- ✓ IT technicians must earn an Associate Degree in Information Technology or a Bachelor's Degree in Computer Science or Networking.
- ✓ Technicians render services for IT companies depending on the industry they choose to work in and may need to learn more about database programming to give themselves an advantage in an entry-level role.



11. Quality Assurance Tester

Primary Duties

- ✓ Quality assurance testers are technicians or engineers who check software products to see if they're up to industry standards and free of any issues.
- ✓ This role is common for gaming systems, mobile applications and other technology that needs further testing and maintenance when recommended.



Requirements

- ✓ Many quality assurance testers have a Bachelor's Degree in Software Design, Engineering or Computer Science.
- ✓ Testers can work on different software for IT companies, which may influence what degree or specialization they pursue.
- ✓ These professionals should also have excellent time management and communication skills to help document test cases.

12. User Experience Designer


Primary Duties

- A user experience (UX) designer is involved with all facets of product development regarding its purchasing, branding, usability and functionality.
- They collect and review user feedback to determine what a product needs to be efficient, functional and successful.
- They apply this feedback to the design, organization and usability.
- These professionals then monitor the process of testing and revising products until they meet their consumers' high-quality standards.

Requirements

- UX designers may pursue an associate or bachelor's degree program in an IT field and pursue additional coursework or training in design, business, web development and programming.
- Others may be self-taught in programming, design and development.





7 most influential computer programmers of all time

TECHNOLOGY

TechGig Correspondent | 25 May 2020, 08:59 PM | Views: 8984

Larry Page



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- Google co-founder
- Known for inventing the search engine along with Sergey Bin.
- He created the innovative PageRank engine algorithm that created the foundation of Google Search.

Bill Gates



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

- Microsoft co-founder
- Is considered as one of the smartest computer programmers.
- He revolutionized the software and computing world with Microsoft.

Mark Zuckerberg



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- Facebook CEO
- Changed the way people interacted on the internet and maintained friendships.
- He created the innovative PageRank engine algorithm that created the foundation of Google Search

Ken Thompson

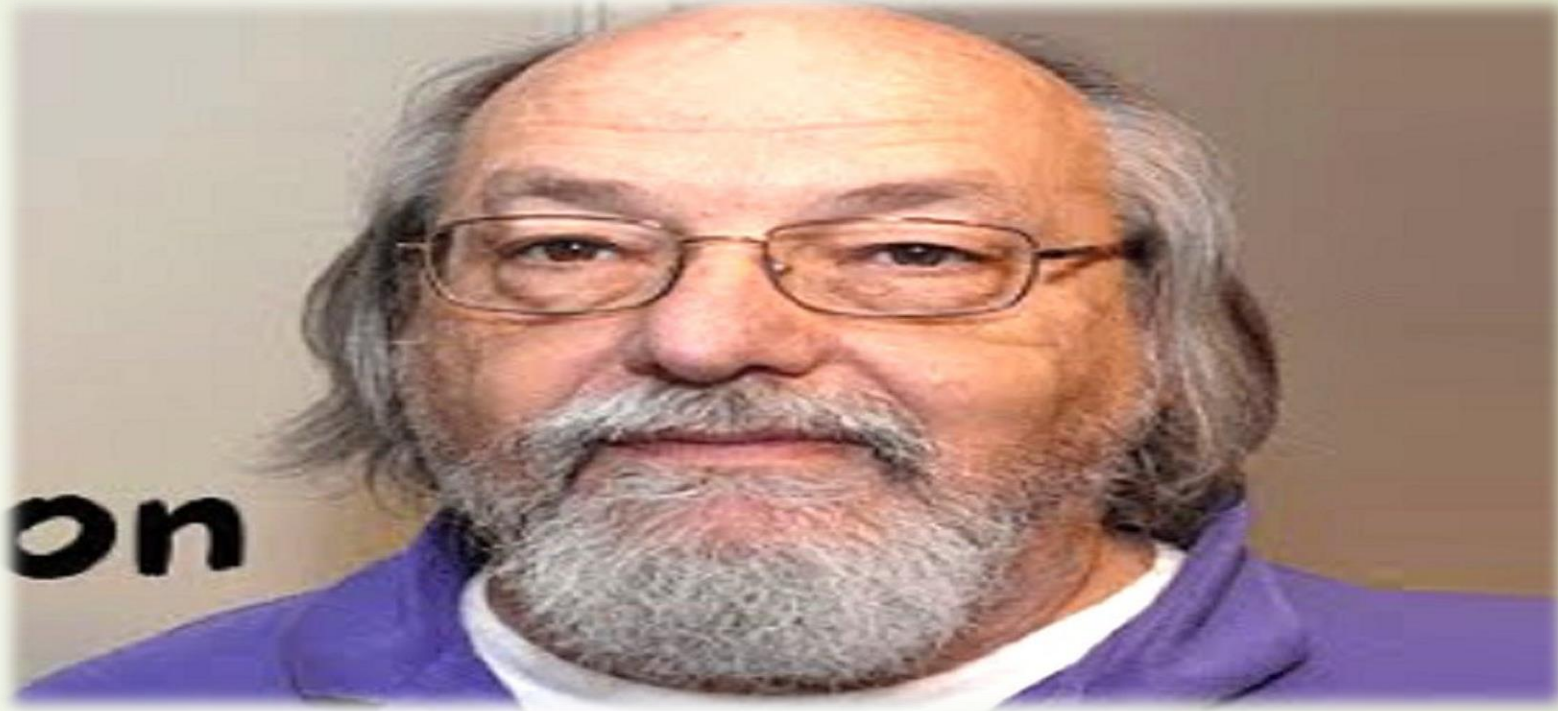


Image by: thefamouspeople.com

- One of the pioneers of Computer Science.
- He implemented the original UNIX OS.
- He re-wrote the UNIX into C programming along with Dennis Ritchie in 1973.

Linus Torvalds



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- The father of Linux.
- The creator of Linux Kernel.
- He also created the version-controlling system Git.

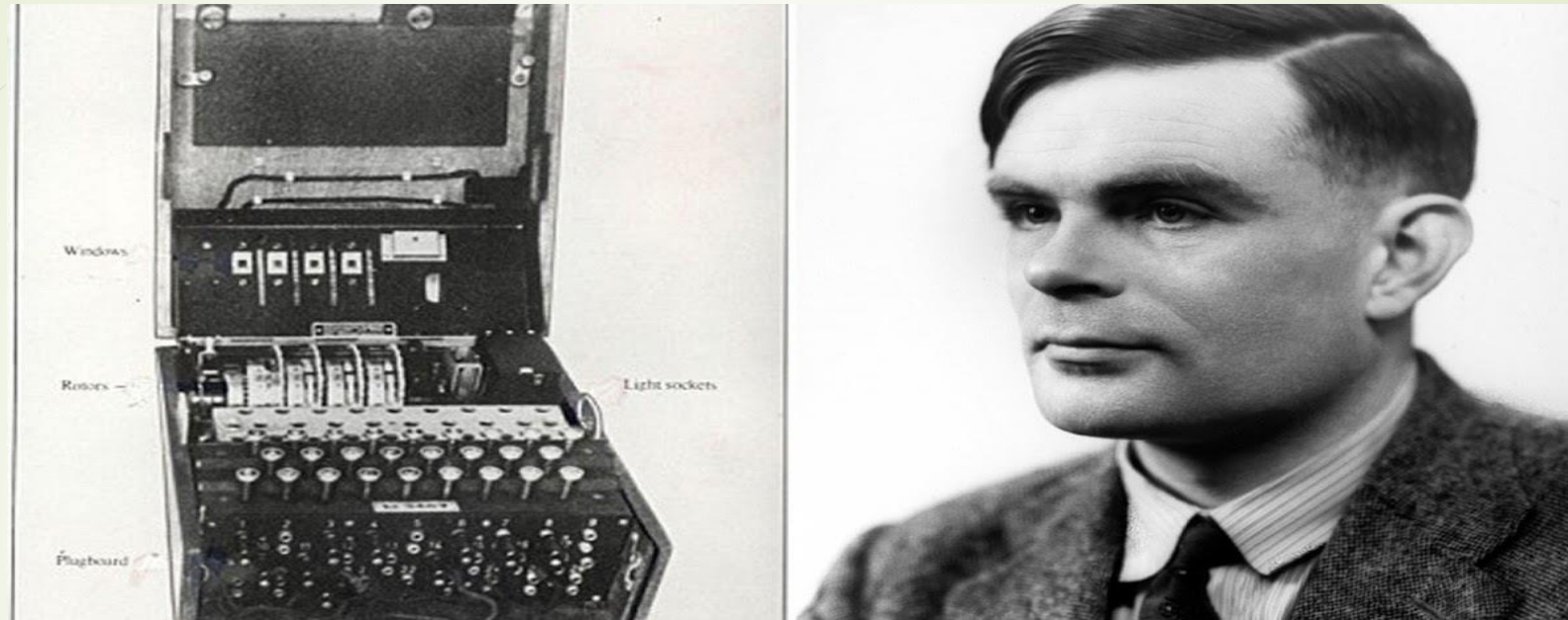
Ada Lovelace



Image by: eu-startups.com

- The world's first computer programmer.
- She recognized the analytical engine.
- Lovelace examined how technology can be related to humans and society

Alan Turing



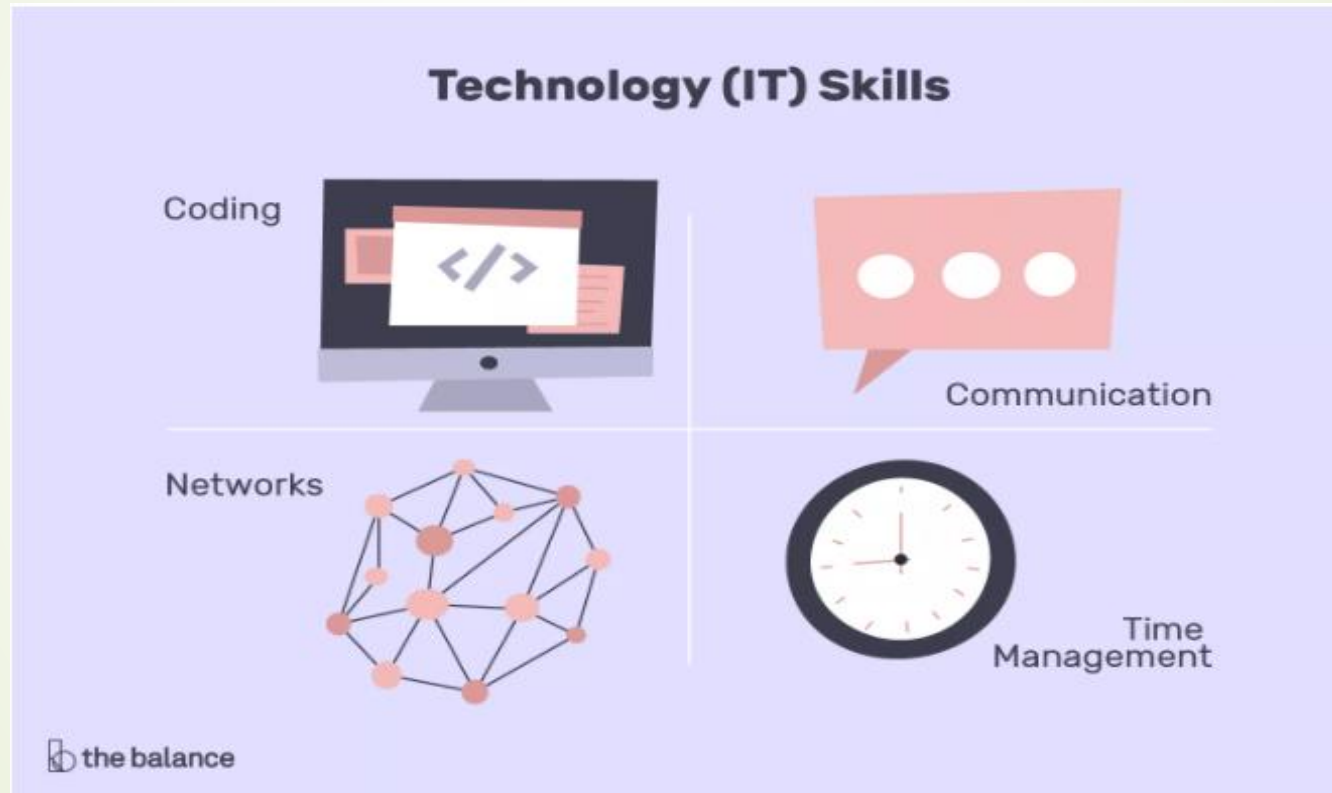
[This Photo](#) by Unknown Author is licensed under [CC BY-NC-ND](#)

- The computer scientist, mathematician, and logician.
- The creator of the Turing machine which simulates computer algorithms.
- Considered as the father of modern computer science.

Information Technology(IT) Skills



Most Important IT Skills Employers Look for



Coding Skills

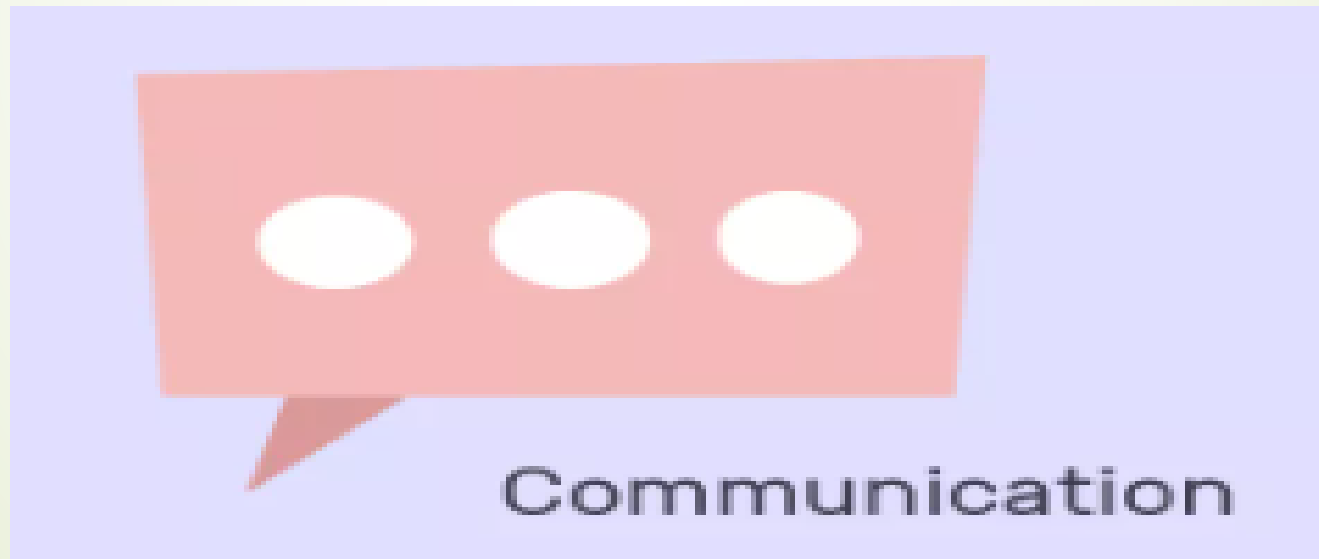
- The ability to write code.
- Can code in several different languages.
- Should also have an understanding of the process of code writing, in order to see a software development project through and to manage things.
 - Application Development
 - Architecture
 - Artificial Intelligence
 - Cloud Computing
 - HTML
 - C++
 - C Language
 - PHP
 - Java/Java Script
 - Python

Coding



Communication skills

- IT professionals are often required to work across many teams and groups.
- IT professionals often have to provide tech solutions for people who are not as savvy.
- They have to demonstrate leadership at all levels of projects.
- Often called on to present ideas and reports to larger groups of people.



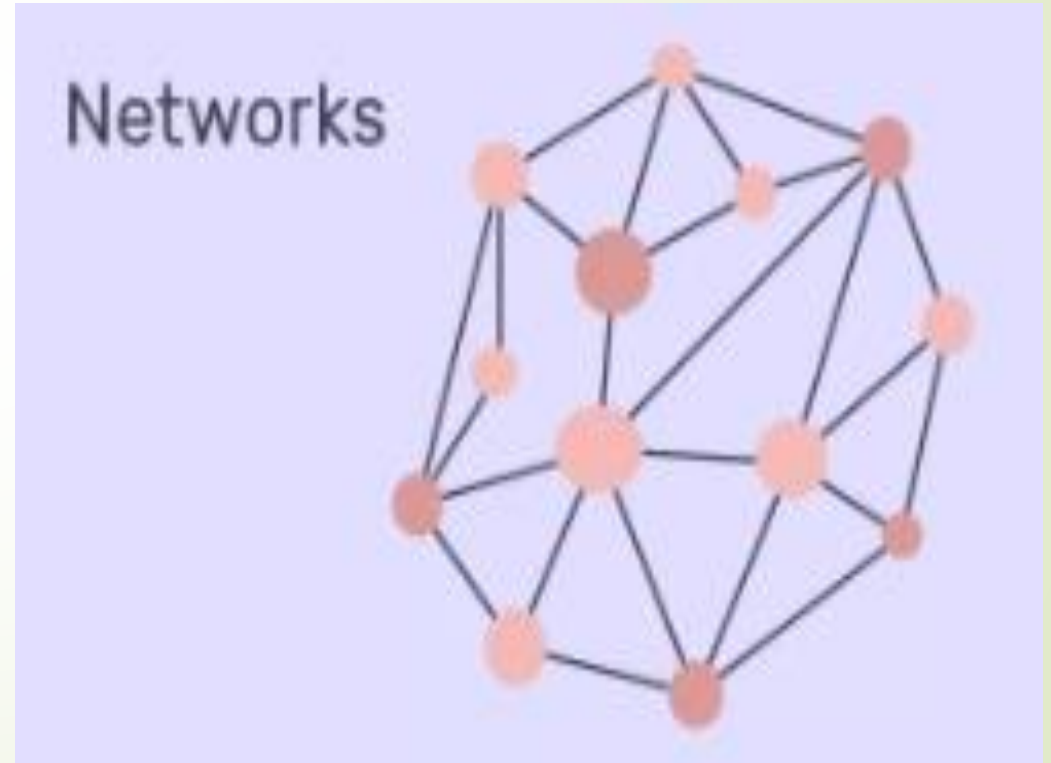


Part of an IT Professional's Job

- ✓ Team Building
 - ✓ Teamwork
 - ✓ Leadership
 - ✓ Collaboration
 - ✓ Written Communication
 - ✓ Oral Communication
 - ✓ Active Listening
- 

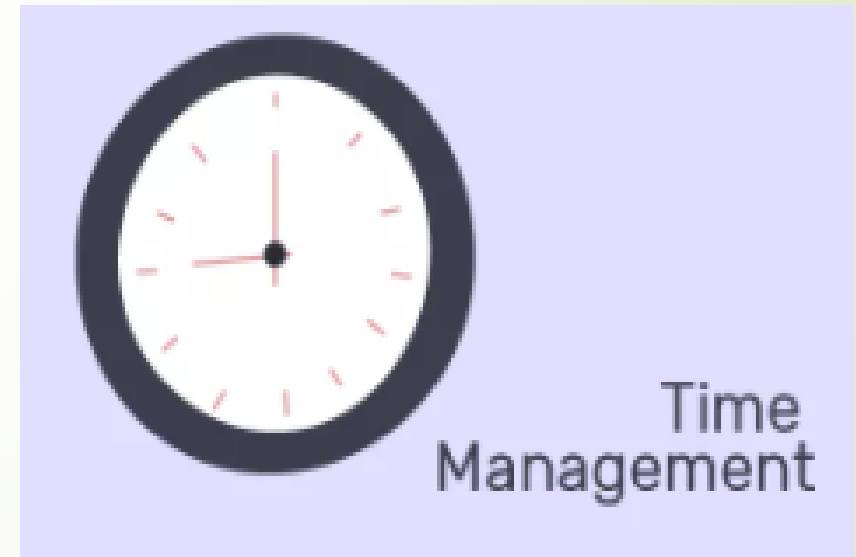
Knowledge and Computer networks

- Knowledge networking is an extension of good communication skills.
- It requires gathering groups of people in a working environment to see what they know.
- Network administrators (or systems administrators) are responsible for the day-to-day operations of a larger system such as:
 - IT setup
 - Wireless Modems/Routers
 - Cloud Services
 - PHP
 - SQL
 - JavaScript
 - Python
 - C++
 - Functionality
 - Cyber Security
 - Information Management
 - Cloud Systems Administration

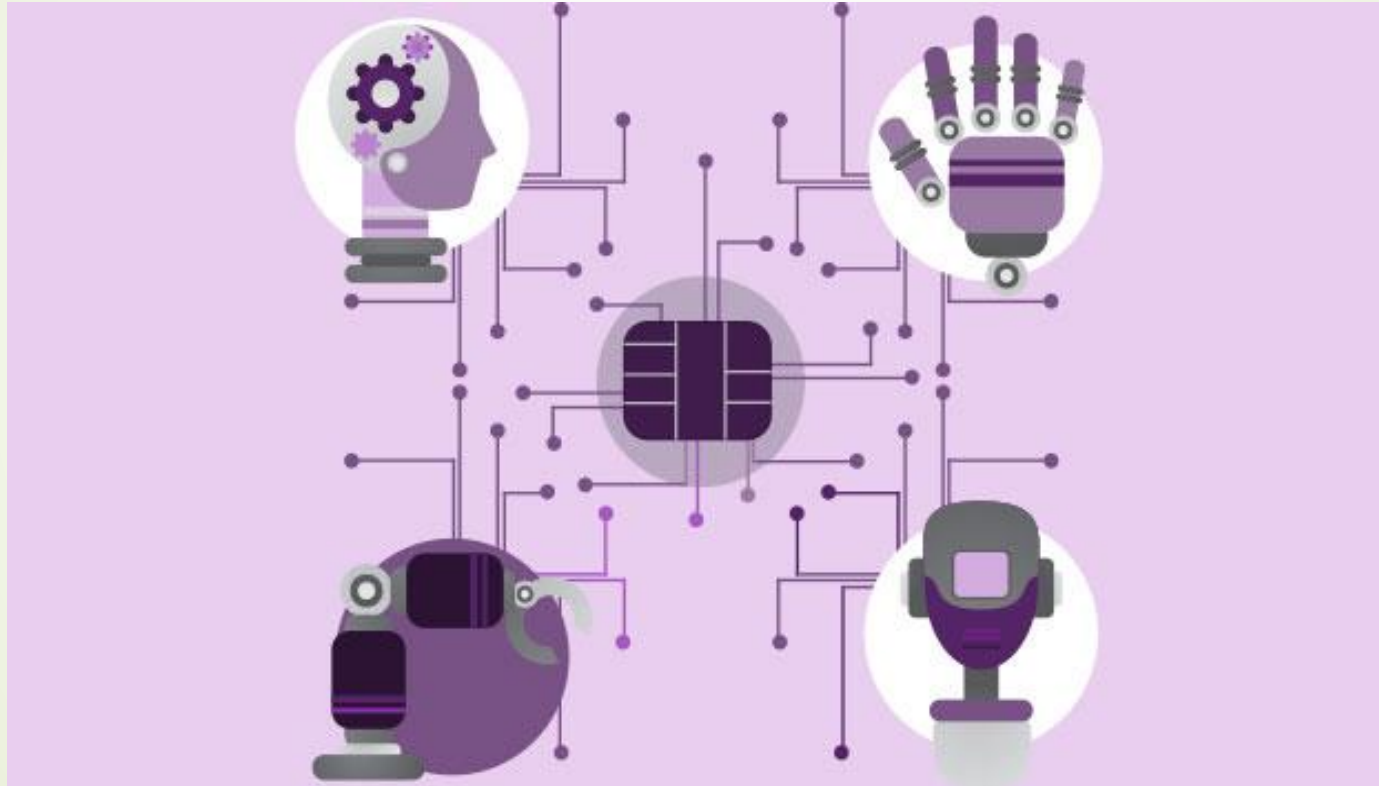


Time and project management

- IT Professionals need to be self-directed and self-motivated.
- Self-directed work means an ability to manage projects well.
- Should also be able to help an entire team manage their workload, on a daily, weekly, monthly and project basis.
 - Scheduling
 - Goal Oriented
 - Digital Communications
 - Manage Remote Working Teams
 - Multitasking
 - Meeting Deadlines



What are the jobs in Computer Science?






What are the jobs in Computer Science?

- ➡ is the scientific approach to computation, along with its wide range of applications.
- ➡ study the feasibility and mechanisation of procedures, known as algorithms, which underlie the acquisition, processing, storage and communication of data.



What are the jobs in Computer Science?

- Work on the theoretical side of computer systems, as opposed to the hardware side, which is generally in the computer engineering domain.
 - The main employers are IT consultancies and service providers, as well as the IT departments of organizations across most industries. These include financial services, retail, telecommunications, aerospace, and defense.
- 



What qualifications do Computer Scientists need?

- Most computer scientists hold a Ph.D, M.Sc, or B.Sc in computer science or a related discipline such as mathematics.
- Need to think logically to devise programs, whilst troubleshooting problems and fixing bugs, and work in a variety of programming languages.
- Good communication skills
- Up to date with the latest technology



Key skills for computer scientists

- Excellent maths skills
- Excellent computer and technology knowledge and skills
- An ability to analyse problems and trace them to their core causes
- A systematic approach to work and problem solving
- A stickler for accuracy
- A strong ability to anticipate and diagnose problems
- Ability to organise and classify large amounts of information



Typical employers of computer scientists

- Research companies
 - Large computer and software companies
 - Social media companies
 - The government
 - Large manufacturers
 - Financial service providers
- 

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