**DAILY ASSESSMENT FORMAT**

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| **Date:** | **09-July-2020** | **Name:** | **Bhuvanesh M** |
| **Course:** | **Coursera** | **USN:** | **4AL16EC015** |
| **Topic:** | **The Evolution of Data Models** | **Semester & Section:** | **8th sem & ‘A’ section** |
| **Github Repository:** | **Bhuvan** |  |  |

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| **FORENOON SESSION DETAILS** | | |
| **Become an Informed Consumer**  The last few years have given us improvements in the speed and availability of Internet services, as well as advances in cloud computing and sensor technology. These technical gains, together with recent developments in automation and artificial intelligence, have created a highly digitized world. Digitization currently impacts every aspect of our daily lives. Digitization continues to provide new opportunities for professionals who are trained to develop and support the technology that is used to deliver the IoT.  The IoT provides an immeasurable amount of information that is readily available for consumption. This information can be quickly analyzed and used to automate many processes that were previously considered impossible to turn over to machines. For example, just a few years ago self-driving cars existed only in our imaginations and now they are a reality. Think about what else has changed in your life because of the IoT.  The IoT is also freeing humans from the drudgery of routine and repetitive tasks such as restocking shelves and order fulfillment. We may now have more time for higher intellectual pursuits and the chance to explore all the IoT has to offer. **Challenges in the Digitized World** The IoT provides many benefits but at the same time it presents many challenges. Since the IoT is a transformational technology, we are now faced with an ever expanding collection of new technology that we must master. The IoT is changing every aspect of our lives.  This is not the first time we have experienced a technological development that has such an impact. Mechanization on the farm allowed increased productivity of available farmland and started the migration of the population from rural to urban areas. The development of the automobile allowed for greater mobility of the workforce and increased recreational activities. The personal computer allowed the automation of many routine tasks with improved accuracy and efficiency. The Internet started to break down geographic barriers and improve equality between people on a global scale. These are only a few of the transformational technologies that we have experienced in recent history.  Every one of these technologies presented major changes to an established society and was met with initial fear and apprehension. After the initial fear of the unknown was overcome and the technology was embraced, the inherent benefits became obvious. Each perceived challenge opens up many new opportunities. **Entrepreneurs needed!** The IoT is also creating a demand for a new kind of IT specialist. These are individuals with the knowledge and skillsets to develop new IoT-enabled products and process the data they collect.  An entrepreneurial workforce is needed that specializes in both information science and software or computer engineering.  Additionally, operational technologies and information technologies are converging in the IoT. With this convergence, people must collaborate and learn from each other to understand the things, the networks, and methodologies that harness the limitless potential of the IoT. **Lifelong Learning** With the ever changing landscape of the digitized world, we must stay current in order to realize the full potential of what the IoT has to offer.  The job market will continue to offer more opportunities as new technologies evolve. The skill sets required for these jobs will evolve at the same time, thus creating the need for lifelong learning. **Cisco Networking Academy** The rapid growth of networks has created a global shortage of people who are qualified to implement and maintain networking solutions, especially in places where networks are being built to promote economic development. At the same time, people need access to better training and career opportunities to successfully compete in the global economy.  With over 10,400 academies in 180 countries, the Cisco Networking Academy helps individuals prepare for industry-recognized certifications and entry-level information and communication technology (ICT) careers in virtually every type of industry. The Cisco Networking Academy helps address the growing demand for ICT professionals, while improving career prospects in communities around the world.  The Cisco Networking Academy Program has trained more than five million students to date. Many graduates have gone on to successful IT careers in a variety of industries, while others have harnessed the entrepreneurial spirit and knowledge they acquired to start their own businesses and create new jobs. **Networking Academy Curriculum** The Networking Academy delivers a comprehensive, 21st century learning experience. Students develop the foundational IT skills needed to design, build, and manage networks, along with career skills such as problem solving, collaboration, and critical thinking. Students complete hands-on learning activities and network simulations to develop practical skills that will help them find their place among networking professionals around the world. These are some of the offerings of the Networking Academy:   * **IoT Fundamentals** – This series of courses teaches you about the IoT and how it can be used to enhance society. This series continues to evolve. It currently includes courses and activities to develop your skills for securely collecting data and connecting sensors to the cloud, analyzing big data, and creating your own IoT solution. * **IT Essentials**- IT Essentials covers the fundamentals of computer hardware and software. It also introduces more advanced concepts, such as security, networking, and the responsibilities of an IT professional. * **Entrepreneurship**- The Entrepreneurship course teaches critical business skills, financial skills, attitudes, and behaviors to help students develop an entrepreneurial mindset which can empower them to improve their overall quality of life. * **Introduction to Cybersecurity** - The Introduction to Cybersecurity course covers trends in cybersecurity and demonstrates the need for cybersecurity skills in various industries. * **CCNA Routing and Switching** – Cisco Certified Networking Associate (CCNA) Routing and Switching provides a comprehensive overview of networking concepts and skills. It covers skills and knowledge required for administrators of devices in small to medium-sized networks. This curriculum has an emphasis on practical application, work-force readiness, and soft-skills development. * **CCNA Security** - CCNA Security introduces the core security concepts and skills needed to install, troubleshoot, and monitor a network to maintain the integrity, confidentiality, and availability of data and devices. * **CCNP –** The Cisco Certified Networking Professional (CCNP) curriculum is the next step for people who have completed the CCNA Routing and Switching courses.  **Industry Certifications** Industry certifications are highly respected by employers around the world and help validate the skills needed to launch successful careers in networking and IT. Certifications are achieved by passing an exam proctored by a certifying authority. Students must complete training materials specific to the certification exam. Field experience is often very helpful, but not always required, to pass a certification exam. Cisco Networking Academy provides courses that prepare students for the industry certifications that are shown in Figure 1.  There are two basic types of certification available: vendor-specific and vendor-neutral. Vendor-specific certifications are tailored to technologies offered by a company to prove that an individual is qualified to deploy and manage that technology. Vendor-neutral certifications are offered by many different organizations. They show that an individual has a well-rounded skillset centered on common systems and programs, rather than specific brands of technology.  Most often, certifications must be renewed over time. Requirements for re-certification may be earning continuing education units (CEUs), passing a re-certification exam, or both. CEUs can be earned by attending classes, professional membership, on-the-job experience, or research and publishing of materials that support the certification technology. |