**DAILY ASSESSMENT FORMAT**

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| **FORENOON SESSION DETAILS** |
| 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. The Evolving Job Market The IoT is changing the job market. Traditional jobs are being replaced with jobs that are designed to embrace this new world and all it offers.  In IT, opportunities may be specific to fog computing, developing new processes, or a specialization in a discipline that has not yet been realized. These jobs reflect skills spanning multiple disciplines that include computer science, computer engineering (a blend of computer science and electrical engineering), and software engineering in the following areas:   * Artificial Intelligence * Application Development * IoT Program Developer * IoT Security Specialist * Collaboration * Enterprise Networks * Data Center and Virtualization   Not all jobs created by the IoT are IT-related. The IoT should be considered an enabling technology which has applications across all industries and aspects of our daily lives. For example, a city planner uses the data collected by IoT-enabled devices to plan out new city services. Sales people use IoT technology to enhance the sales experience with the customer, and stores use IoT technology to maintain proper inventory levels to match customer demand.  The IoT has created an abundance of jobs within its sphere. These jobs exist across various spectrums of the design, development and enabling of the IoT. There are broad categories that summarize the job opportunities that exist in the evolving digitized world:  • **Enablers** – These jobs develop and implement the underlying technology.  • **Engagers** –These jobs design, create, integrate, and deliver IoT services to customers.  • **Enhancers** – These jobs devise their own value-added services, on top of the services provided by Engagers, which are unique to the Internet of Things. 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 everchanging 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. |