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ASSIGNMENT COVERSHEET FOR INDIVIDUAL WORK

Faculty of Design and Creative Technologies

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Tutor:		**Tutorial Time**		**No.Words/Pages**	

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Week 6 (8%):

Boundaries create scope and opportunities for business modeling.

Why do business models focus on infrastructure and processes? (Half page)

For several important reasons, business models place an important emphasis on infrastructure and processes, such as:

- **Efficiency and Cost Optimization:** Processes and infrastructure that are well-structured can help business models simplify operations, decrease waste, and cut expenses. This is

crucial for establishing profitability and sustainability in a competitive business environment, like business models.

- **Quality Assurance:** By ensuring consistency and quality in the delivery of products or services made by the defined procedures and infrastructures, customer satisfaction can be improved and more trust can be granted.
- **Better Risk Management:** Risk assessment and mitigation measures are usually included in the infrastructure processes, which is critical for identifying and managing potential risks. This threat management can offer the business a better path and lower the risk of failure.
- **Database Analysis:** Data-driven decision-making is becoming increasingly important in modern company structures. Data collection, storage, and analysis require robust infrastructures, while well-defined processes ensure data correctness and integrity.
- **Adaptation:** Businesses can experiment and evolve more stablely by using the design of their infrastructure and processes, which can encourage innovation and adaptability of the processes.
- **Compliance and Regulations:** Structured processes and infrastructures help businesses adhere to these rules and avoid legal issues by following state-made business models.

How can you become an Influencer for a social network business model? (Half page)

Becoming a social influencer for a social business model could be described as being able to communicate with large numbers of people in your social network and using multiple channels or many different methods. By looking at the social media integration theory model, here are some key points:

- **Create High-Quality Content:** You can make valuable content and regularly update your content for your social network business model through various ways and platforms, for example, blogs, Facebook, X, Instagram, Web, and even YouTube. This helps you create more fame and attention from the viewer, makes the business more viral, and creates more identity on the social network.
- **Building Relationships:** Building relationships is a crucial aspect of becoming an influencer in a social network business model. Strong relationships can help you gain exposure, collaborate with others, establish credibility, and play an incredibly important part in your path to becoming a famous influencer.
- **Accept feedback and improve yourself:** To become an influencer, you need to take advice from others. Your followers, your seniors, or the Internet can give you more valuable feedback and information to grow yourself. Feedback is an invaluable resource for continuous improvement. Encourage input from your followers and aggressively seek constructive criticism.

Week 7 (8%):

Modeling for Business Process Improvement is a critical task for service system design and improvement.

Describe how Business Process Improvement methods work. (Half page)

The Business Process Improvement (BPI) method has a total of seven steps that aim to enhance the efficiency and overall performance of the whole business process in an organization. Here are the 7 steps of the BPI method:

1. **Identification of Processes** (Choose a Process to Improve): The first step in the BPI method is to choose the specific processes that need improvement in efficiencies, cost reduction, and efficiency. This can help our business deeply understand the strengths and weaknesses of different aspects of it.

2. **Map out the current process**: By mapping out the alternative processes that could replace the selected processes that need improvement in the first step or steps that need upgrading to bring better performance to the business processes,
3. **Identify Bottlenecks & Areas for Improvemen**t: After identifying the bottleneck points, which are points in the process where work slows down or gets delayed, and finding areas for improvement, we can sketch a better way to improve it. This can significantly increase the overall performance of business processes.
4. **Map out the potential new process**: A new and improved process is built based on the identified bottlenecks and areas for improvement. This stage entails developing a future state process map that depicts the desired process flow after enhancements have been applied.
5. **Test the process and revise**: It is critical to test the new procedure on a smaller scale before applying it on a larger scale. This enables the identification of possible problems and the fine-tuning of the process. During this stage, feedback from employees and stakeholders is invaluable.
6. **Implement the new process**: The redesigned method is ready for full-scale implementation once it has been tested and adjusted. Making the necessary modifications to the organization's operations, such as educating staff, updating technology, and modifying procedures, falls under this category.
7. **Review the process:** BPI is a continuous process. Following the implementation of the new process, it is critical to regularly monitor and analyze its performance. The success of the improvements is measured using key performance indicators (KPIs). Employee and stakeholder feedback is also taken into account for future improvements.

What should your models show to assure business value realization? (Half page)

To assure business value realization, our models should show some aspects of the business and different features of it. For example:

- **Accuracy and Reliability:** Our business models need to show perfectly accurate and reliable results or processes. Through various stages like testing, validation, and incessant monitoring, the predictions of models or the recommendations of the business will be much more trusted.
- **Communication and Transparency:** It is critical to communicate effectively about the model's strengths, limits, and discoveries. Transparency in the model's operation and decision-making processes fosters stakeholder confidence.
- **Cost-Efficiency:** Models should contain a thorough cost-benefit analysis that shows both the prospective advantages and the associated expenses, which helps decision-makers understand the financial consequences of their actions.

Week 8 (8%):

There are many standard service frameworks that act as service reference models.

Why are these models so complex and confusing? (Half page)

There are several reasons why these frameworks and tools for enterprise architecture and software services modeling are so complicated and confusing:

- **Diverse needs of stakeholders:** Most frameworks and models often attempt to cater to a wide range of industries, sectors, and organizations like architecture and enterprise, and different types of diagrams or models might be used in various ways. As a result, these models are much more complex than we expected, and they have to incorporate elements and components just to meet the needs of different stakeholders.
- **Adaption and Evolution:** In order to keep up with technological advancements, followed by changes in the needs of stakeholders, many frameworks and models have to evolve over time to adapt to changing business environments, technologies, and regulations. As

additional parts are added to solve new issues, this progression may lead to layers of complexity.
- **Use of Jargon and Terminology:** Most modern frameworks and models nowadays employ industry-specific jargon and terminology that may not be immediately accessible to everyone, especially newcomers. This brings up its complexity and confusion when used by anyone who is not familiar with it.

How is ITIL used to assure technology services satisfy a customer? (Half page)

ITIL (Information Technology Infrastructure Library) is a set of best practices for IT service management that aims to help organizations align their IT services with the needs of their customers. ITIL is critical to ensuring that technology services meet the needs of customers by offering a standardized approach to service delivery and management. Here are several ways ITIL can be used for this purpose:

- **Service Design:** ITIL assists in the design of services that are not only technically feasible but also aligned with customer objectives throughout this phase. It guarantees that the service design takes into account elements such as availability, capacity, security, and continuity in order to meet consumer expectations.
- **Customer Feedback:** ITIL encourages businesses to actively gather and evaluate customer feedback in order to better understand their customer satisfaction levels and areas for development. Customer perception can only be assessed through feedback methods such as surveys, incident reports, and service reviews.
- **Change and Problem Management:** Properly managed changes are essential for preventing service disruptions and ensuring that client requirements are met. In line with this, ITIL's problem management method is dedicated to identifying and addressing the root causes of incidents to prevent their recurrence. ITIL offers valuable guidance on effective change management processes, including the assessment, prioritization, and authorization of changes. This approach not only enhances service quality but also significantly contributes to increased customer satisfaction.

Week 9 (8%):

Standardized modeling of services assures consistency and interoperability of service systems.

Describe how TOGAF models management requirements. (Half page)

TOGAF, or The Open Group Architecture Framework, is a widely used framework that is especially made for enterprise architecture and includes a detailed methodology and set of tools for developing an enterprise architecture. It offers a methodical approach to managing many parts of an organization's architecture, such as management requirements. Here is how TOGAF models management requirements:

1. **Phase A: Architecture Vision**
    - **Stakeholder Identification:** TOGAF assists in identifying and categorizing stakeholders, especially those with management responsibilities. This step lays the groundwork for comprehending management requirements.
2. **Phase B: Business Architecture:**
    - **Business Goals and Objectives:** TOGAF ensures that business architecture matches with the goals and objectives of the organization, which are frequently set and driven by management. During this phase, management needs for strategic alignment are examined.

3. **Phase C: Information Systems Architectures**:

   - **Data Management:** TOGAF addresses data management needs such as data governance, data quality, and data lifecycle management, all of which are critical management problems.

4. **Phase D: Technology Architecture**:

   - **Infrastructure Management:** This phase evaluates the needs for technology infrastructure management, including the hardware and software components required for IT administration.

5. **Phase E: Opportunities and Solutions:**

   - **Solution Architecture**: TOGAF assists in the design of solution architectures that fulfill management requirements and fit with business objectives. It guarantees that solution designs are built to meet particular management needs.

6. **Phase F: Migration Planning**:

   - **Implementation Governance**: TOGAF aids in establishing a governance framework that encompasses guidelines and procedures for supervising the execution of the architecture, as well as management requirements for overseeing its implementation.

7. **Phase G: Implementation and Change Management:**

   - **Change Management:** TOGAF gives guidelines on change management methods, which are critical for dealing with changes, meeting management demands, and guaranteeing successful implementation.

8. **Phase H: Architecture Change Management**:

   - **Change Control:** TOGAF integrates change control procedures to handle alterations to the architecture, guaranteeing their alignment with management prerequisites and obtaining the necessary endorsement from pertinent stakeholders.

When and how are project management models used to improve services? (Half page)

Here's when and how project management models are typically used to improve services:

- **Identification of Service Improvement Needs**: Organizations commonly embrace project management frameworks when they identify a necessity to enhance their services. This recognition may arise from factors like customer input, shifts in the market, alterations in regulations, or a determination to remain competitive. Project management models also assist in establishing clear service improvement project objectives and formulating specific, measurable targets and desired results.
- **Planning**: Project management models like PMI's PMBOK or the PRINCE2 approach are employed to develop comprehensive project plans. This entails specifying tasks, crafting schedules, assigning resources, and setting financial allocations. The planning stage guarantees that all elements of the service enhancement project are thoroughly documented and systematically structured.
- **Monitoring and Controlling:** Project management models facilitate ongoing project oversight and management. This involves monitoring project performance according to the established plan, recognizing and addressing risks, and making required modifications to ensure the project stays on course. To gauge progress and quality, organizations frequently utilize key performance indicators (KPIs) and various metrics.
- **Quality and Efficiency:** Project management models offer organized procedures for quality assurance and control, guaranteeing that services align with specified quality criteria, if not surpass them. Furthermore, these models ensure efficient resource utilization and adherence to project schedules, ultimately resulting in enhanced service efficiency.

Week 10 (8%):

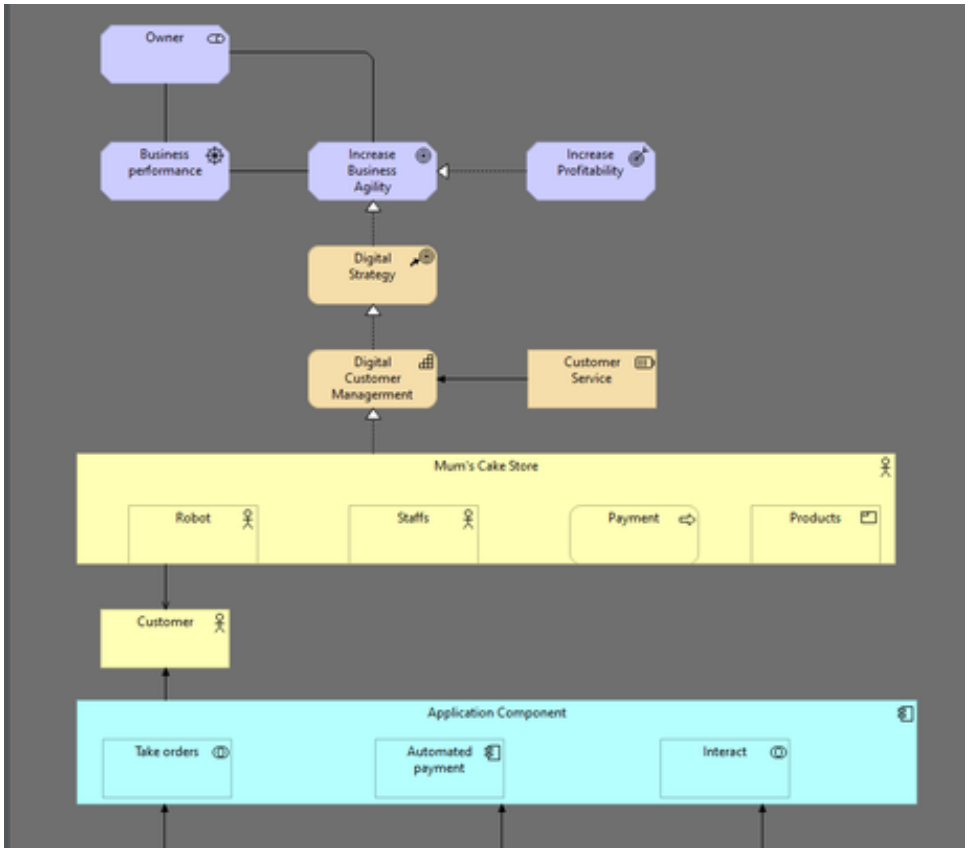
INFS604 has four Learning Outcomes. Go to the Descriptor in Canvas and say how you have achieved each. (1 Page)

1. **Apply suitable tools and methods in service-based systems analysis and modeling*:*** To understand the system's architecture, parts, and interconnections, I used various tools like UML, DFD, and BPMN to analyze and model service-based systems. These tools have various documentation, flowcharts, and diagrams that I need to generate appropriately to reflect the service-based system. This can involve drawing use case, sequence, or system architecture diagrams. Which is why I used platforms and software such as draw.io, Lucidchart, and ArchiMate (our service model for Mum's Cake Store) to help with system modeling and analysis.
2. **Apply suitable tools and techniques in service interface validation and quality analysis:** Appropriate tools and techniques should be employed to ensure effective service interface validation and quality analysis. By utilizing these tools and techniques, one can thoroughly evaluate the service interface and analyze its quality. I employed several widely recognized API testing tools, like Postman and Apigee to validate the correctness of the service interfaces. Furthermore, I applied a range of quality analysis methods, encompassing load testing, security testing, and usability testing, for a comprehensive evaluation of interface quality. To ensure that the service interfaces met all criteria, I conducted a rigorous assessment of their alignment with industry standards and best practices.
3. **Analyze, model and re-engineer business processes and user experiences in using digital services:** I used a service-oriented modeling approach, specifically SOMA, to identify the business goals, requirements, and challenges of both customers and stakeholders engaged in service delivery. Furthermore, I conducted a comprehensive analysis of the existing state of business processes and user interactions, pinpointing areas of deficiency, inefficacies, and avenues for enhancement. By adhering to the fundamental principles of service-oriented design and development, such as modularity, reusability, interoperability, and scalability, I successfully restructured the business processes and user experiences for improved performance.

- **Utilise different infrastructure services in designs and analyze different service models and their impact in offering these services:** By using a cloud service provider, such as Google Cloud or Amazon Web Service, I accessed various infrastructure services, such as servers, storage, networking, and virtualization, over the internet whenever I needed them. I chose the infrastructure services that matched my requirements, such as virtual machines, bare metal servers, containers, or serverless functions, and used them to design and implement my applications and workloads. I also examined the different service models, such as IaaS, PaaS, and SaaS, and how they affected the performance, scalability, security, and cost of my applications and workloads.

ArchiMate Model (10%)

ArchiMate Model (10%) Mum’s Cake store you modelled in Check point Portolio 1, liked the work you did but now wants to further develop and improve their business processes. Mum’s wants to use data analytics to improve customer services and to push out a new mobile app where customers can do all their shopping online, get specials and product information, and interactively be guided around the physical shop. Use the full ArchiMate design tool with the six layers (Strategy, Business, Application, Technology, Physical Technology, and Implementation) and the four Aspects (Passive, Behavioural, Passive, and Motivation) to model the requirement. Take your previous model and add the new features. (2 Pages)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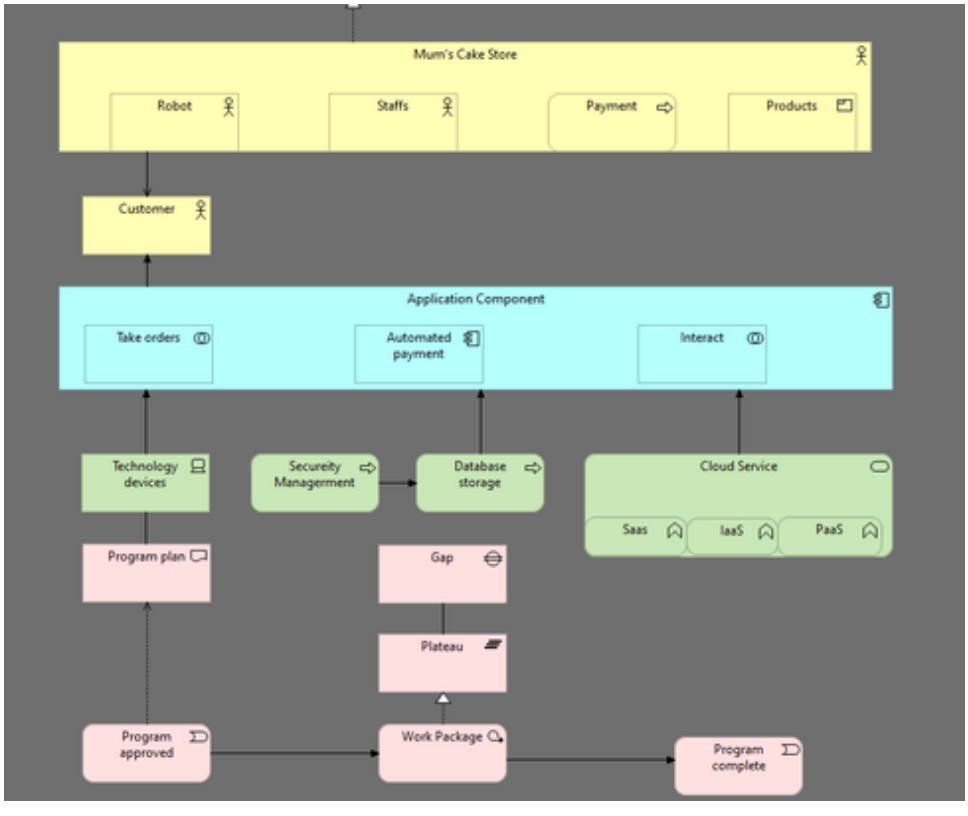
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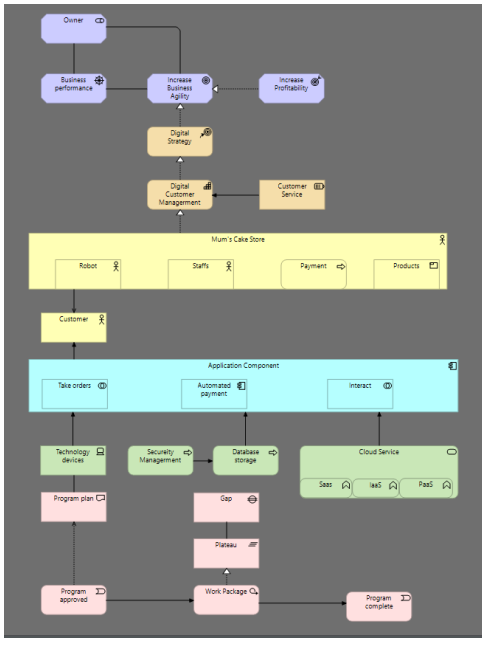
Program complete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