MSIS AY 2017-2018 Assessment

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Phase 1: Assessment Plan
Learning outcomes are assessed based on assignments and exams designed for measuring to what extent program learning outcomes are achieved. First, learning outcomes are mapped onto the courses to identify to what extent each course covers a learning outcome. The coverage of learning outcome in each course is scored 1-3 (one the least and three the most coverage). Courses with the score of 3 are identified and assignments are designed to measure learning outcomes in those courses. Each learning outcomes is measured by its traits. The traits for each learning outcome are developed by the instructor of the courses and Majid Dadgar. Rubrics are designed to assess courses based on learning outcomes and their traits. In each assignment, learning of the students is assessed whether they exceeded expectation, met the expectation, or did not meet the expectation in each trait. Such assessments allow instructors to evaluate effectiveness of courses in achieving learning outcomes over time so that they can make necessary changes.

The following learning outcomes (MSIS program objectives) in the following three MSIS courses are assessed as the representative sample of the MSIS program:

1. [MSIS 672: Data Architecture & Management | measured in summer 2018]:
   - Use information technology to create effective organizational structures
2. [MSIS 674: Social Media as a Tool | measured in spring 2018]:
   - Recognize customer service orientation, ethics and professionalism.
2. [MSIS 681: Capstone Project | measured in fall 2018]:
   - Integrate information and organizational cultures from both technical and managerial viewpoints.

MSIS 672: Data Architecture & Management
The following traits are developed for the learning objective of “use information technology to create effective organizational structures”.

Traits
Trait 1: Students use analytical tools and techniques to investigate the data architecture of an organization. This trait measures how well students can use analytical tools such as DFD (data flow diagrams) to investigate the advantages and disadvantages of different data architecture practices.

Trait 2: Students use analytical tools and techniques to investigate the data management practices in an organization. This trait measures how well students can identify and analyze data management practices in an organization using techniques such as CRUD (Create, Read, Update, Delete) matrix.

Measurement Method
Trait 1 (individual hands-on assignment): students are provided with a case study (see Appendix A) outlining the structure of an organization. Next they use DFD (data flow diagrams) to identify and analyze different aspects of a data architecture in an organization. The analysis of the students shows how different entities in an organization interact with different aspects of a data systems in an organization.
Trait 2 (written and hands-on individual assignment): students are provided with a case study (see Appendix B) outlining the structure of an organization. Students work on the same case study so that they can relate their analysis of the data architecture of the same organization to its data management practices. Next they use CRUD (Create, Read, Update, Delete) matrix to identify and analyze different aspects of data management practices in an organization. In their analysis students identify critical risk data (CRD) based on which they discuss the security restrictions that should be in place to protect the critical data. They will further discuss the data access and views of the organizational data by developing a CRUS matrix.

Targeted performance
Our assessment target is that 80% of the students meet or exceed expectations.

Rubric
The following rubric is used to measure how students performed in relation to the traits of the learning objective, meeting, exceeding, or failing the expectations. The details of the expectations for each trait is provided below.

<table>
<thead>
<tr>
<th>Traits</th>
<th>Exceeds expectations =3</th>
<th>Meets expectations =2</th>
<th>Below expectations =1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trait 1:</strong> Students use analytical tools and techniques to investigate the data architecture of an organization.</td>
<td>Identify all the most important organizational entities interacting with the data systems that are discussed in the case study and diagram the data architecture of an organization using the DFD technique following the DFD’s rules and standards.</td>
<td>Identify all the most important organizational entities interacting with the data systems that are discussed in the case study but fail to correctly and fully visualize (diagram) the interactions of those organizational entities with the data systems using the DFD technique and correctly following the DFD’s rules and standards.</td>
<td>Identify some but not all the important organizational entities interacting with the data systems that are discussed in the case study and fail to correctly and fully visualize (diagram) the interactions of those organizational entities with the data systems using the DFD technique and correctly following the DFD’s rules and standards.</td>
</tr>
<tr>
<td><strong>Trait 2:</strong> Students use analytical tools and techniques to investigate the data management practices in an organization.</td>
<td>Identify critical risk data (CRD) and explain the security restrictions that should be in place to protect such data, and develop a CRUD matrix to provide insights about the data view and access.</td>
<td>Identify critical risk data (CRD) without proper explanation of the security restrictions that should be in place to protect such data, and develop a CRUD matrix without providing insights about the data view and access.</td>
<td>Identify some of the critical risk data (CRD) without proper explanation of the security restrictions that should be in place to protect such data, and develop an incomplete CRUD matrix without providing insights about the data view and access.</td>
</tr>
</tbody>
</table>
Evaluator(s)
Majid Dadgar, assistant professor

MSIS 674: Social Media as a Tool
The following traits are developed for the learning objective of “Recognize customer service orientation, ethics and professionalism.”

Traits
Trait 1: students explain the use of social media to create a collaborative economy and analyze social media incentives. Each individual in a social media is collaborating with others and creates a mutual benefit environment. Students need understand the incentive behind the collaboration and how a social media manager can improve the engagement.

Trait 2: Students use predictive analysis techniques to explain how consumers’ size can grow organically and when advertisement techniques can boost social business revenue. Advertisement is an import part of a social media business. Students need to understand when and how to use predictive analysis techniques to decide if it’s needed to promote a post or not

Measurement Method
Trait 1: Create 5 min presentation to describe advantages and disadvantages of a social media of your choice for an omni-channel business. Also write down 2 pages proposal to describe your business idea related to the social media of your choice. In the proposal students need to explain the incentive of people in their social media.

Trait 2: Use twitter API to analyze consumer behavior and their reaction to your business idea. Create a 5 min presentation to describe your twitter data analysis and prediction techniques. Twitter is great example to run some very basic predictive analysis techniques. Targeted performance

Targeted performance
Our assessment target is that 80% of the students meet or exceed expectations.

Rubric
The following rubric is used to measure how students performed in relation to the traits of the learning objective, meeting, exceeding, or failing the expectations. The details of the expectations for each trait is provided below.
<table>
<thead>
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<th>Meets expectations =2</th>
<th>Below expectations =1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trait 1:</strong> Students explain the use of social media to create a collaborative economy and analyze social media incentives.</td>
<td>Students gain a deep knowledge of how a collaborative economy works in a social media environment. They should be able to use a social media platform to create a business strategy for Uber and Airbnb.</td>
<td>Students understand how a collaborative economy works in a social media environment. They should be able to explain the relationship between sharing economy and social media.</td>
<td>Students can’t properly explain collaborative economy objectives and how social media embrace sharing economy.</td>
</tr>
<tr>
<td><strong>Trait 2:</strong> Students use predictive analysis techniques to explain how consumers’ size can grow organically and when advertisement techniques can boost social business revenue.</td>
<td>Students build and use a social media data platform (Facebook, Twitter, Steemit, etc.) to promote a small business. They should be able to brand themselves using proper content and promote their business using a well-defined advertisement techniques.</td>
<td>Students use a data platform to analyze a social media (Facebook, Twitter, Steemit, etc.) campaign. They should be able to quantify how successful a campaign is using a proper KPIs.</td>
<td>Students can’t properly use a social media platform in order to quantify KPIs.</td>
</tr>
</tbody>
</table>

**Evaluator(s)**
Ahmad Askarian, adjunct faculty

**MSIS 681: Capstone Project**
The following traits are developed for the learning objective of “Integrate information and organizational cultures from both technical and managerial viewpoints.”
Traits

1. **Trait 1:** Students define a personal ethical framework. This is an introspective paper due in the third session of the course. Students are asked to list ten ethical rules or guidelines they use to determine their actions in professional IT situations. For example, a rule might be, “I will treat and respect others as I would like in return.” They also include a narrative which details their life experience to get to the ethical position they have today.

**Trait 2:** Students identify ethical issues in the workplace that are associated with information systems. In the final paper of the course, students identify an issue in today’s IT environment and ask whether it is ethical or not. They define the business, technological and sociological issues associated with the issue, and then look at it from three different ethical perspectives. Finally, they define their own perspective of the issue. An example of an issue is, “Is it ethical to develop and deploy AI driven chatbots to influence consumer behavior?”

Measurement Method

**Trait 1:** This is a homework assignment due in the third session (see Appendix C). Students prepare a paper listing their guiding ethical framework. They must list at least ten rules/guidelines for decision-making, and all must apply directly to a professional IT environment.

**Trait 2:** This is a paper and associated presentation due in the seventh session. Students are assessed on their ability to spell out the business, technological and sociological issues associated with a particular issue. They are further assessed on their comprehension of three different ethical perspectives and how they apply to the issue.

Targeted performance

Our assessment target is that 80% of the students meet or exceed expectations.

Rubric

The following rubric is used to measure how students performed in relation to the traits of the learning objective, meeting, exceeding, or failing the expectations. The details of the expectations for each trait is provided below.
Traits | Exceeds expectations = 3 | Meets expectations = 2 | Below expectations = 1
--- | --- | --- | ---
**Trait 1:** Students define a personal ethical framework and decision-making process. | Students are able to define their personal ethical framework in detail and explain how their perspective relates to established philosophies. (Ex: Utilitarianism, Deontology) They should be able to define at least ten items in their ethical rule set. In addition, they can provide a narrative of their ethical journey, explaining who and/or what contributed to their present perspective & outlook. | Students can define their personal ethical framework by listing at least eight items in their ethical rule set. | Students cannot adequately explain how they make decisions from an ethical perspective

**Trait 2:** Students can identify ethical issues in the workplace that are associated with information systems. | Students are able to look at current events and identify the ethical issues involved in a particular situation. They will then articulate how this happened and what are possible resolutions. | Students can cite potential ethical issues in specific current events. | Students cannot identify ethical issues in our current IT business environment

Evaluator(s)
William A Kolb, adjunct faculty (MSIS program co-director)

Phase 2: Assessment Results
Students are assessed on a 3-point rubric: 1=below expectations, 2=meets the expectations, and 3=exceeds expectations. In the following section in phase 2, the results are presented in tables for each of the three MSIS courses.

MSIS 672: Data Architecture & Management
For trait 1 the total of 70% of the students met or exceeded the expectations and for trait 2 the 84% of the students met or exceeded the expectations.
Suggested Action

Trait 1:

The students performed below the expectations (69%) for this trait. This trait is hands-on which requires high levels of ease of use and usefulness in the software tool or the technique that is used. The trait can improve by providing more similar cases to the assignment case so that students can practice the technique more investigating data architecture in different case studies.

Trait 2:

The students performed me the target performance (84%) for this trait. Once students become familiar with the investigative technique and the software tool, they can perform better in using those tools and applying their understanding to explain data restrictions of the data management practices.

<table>
<thead>
<tr>
<th>Traits</th>
<th>Exceeds Expectations = 3</th>
<th>Meets Expectations = 2</th>
<th>Below Expectations =1</th>
<th>% Students Meeting or Exceeding Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait 1: Students use analytical tools and techniques to investigate the data architecture of an organization.</td>
<td>31%</td>
<td>38%</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>Trait 2: Students use analytical tools and techniques to investigate the data management practices in an organization.</td>
<td>46%</td>
<td>38%</td>
<td>16%</td>
<td>84%</td>
</tr>
</tbody>
</table>
MSIS 674: Social Media as a Tool
For trait 1 the strongest total of 100% of the students met or exceeded the expectations and for trait 2 the 95% of the students met or exceeded the expectations.

<table>
<thead>
<tr>
<th>Traits</th>
<th>Exceeds Expectations = 3</th>
<th>Meets Expectations =2</th>
<th>Below Expectations =1</th>
<th>% Students Meeting or Exceeding Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait 1: students explain the use of social media to create a collaborative economy and analyze social media incentives.</td>
<td>16%</td>
<td>84%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Trait 2: Students use predictive analysis techniques to explain how consumers’ size can grow organically and when advertisement techniques can boost social business revenue.</td>
<td>26%</td>
<td>69%</td>
<td>5%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Suggested Action
Trait 1:
This trait is business focused and student should provide an evidence of understanding a use case of an omni-channel business. They have to design incentive for each user and provide a mechanism to quantify the incentive of participating in social media. Longitudinal experiment on the social media platforms over a longer period of time can better prepare students to understand the inherent benefits of such networking and broadcasting platforms.

Trait 2:
This trait is hands on and requires students to work with social media API and extracting information from huge amount of data that is available on social media. Prior engagement with social media marketing campaigns and social analytics can better prepare students for the class.
MSIS 681: Capstone Project
The traits 1 and 2 both meet and exceed the expectations at 100%.

<table>
<thead>
<tr>
<th>Traits</th>
<th>Exceeds Expectations = 3</th>
<th>Meets Expectations = 2</th>
<th>Below Expectations = 1</th>
<th>% Students Meeting or Exceeding Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trait 1:</strong> Students define a personal ethical framework and decision-making process.</td>
<td>19%</td>
<td>81%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Trait 2:</strong> Students can identify ethical issues in the workplace that are associated with information systems.</td>
<td>19%</td>
<td>81%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Suggested Action**

**Trait 1:**

The students met the expectations set forth. Going forward we should set the bar higher to stretch their efforts. Add a short narrative for each rule/guideline to add some extra depth to their answers, and correspondingly to their thinking.

**Trait 2:**

We should add some more academic rigor to the assignment, requiring more in-depth discussion of the three ethical frameworks they use in their paper. Add a section on compare & contrast the identified frameworks.

**Phase 3: Closing the Loop**

In the year that the assessment is made, this is good place to describe how the suggested actions might be evaluated in a future assessment cycle. When that cycle is complete, the results can be added to this document to finalize the report.
Appendix A

Create a DFD logical design diagram for the following case. Your DFD diagram should be at the context (level 0) and level 1 for the Nationwide’s GSRM system. Once you are done, submit your work in Word or PDF on Canvas > Assignments > Individual Homework 3, by the due date.

- You can use LucidChart.com to diagram DFD. A quick tutorial of diagramming DFD using LucidChart is posted on Canvas > Files > TOGAF.
- In your submission you can make comments or explain your diagram if needed.

NOTE: follow the DFD rules and the cases we have discussed in the class.

NOTE: this is an individual assignment.

On Your Side: Nationwide’s Automobile Policy Rate Management System - GSRM

INTRODUCTION

Buying an automobile insurance policy can be a daunting task. There are numerous companies with a plethora of policy options to consider. When you speak to the man with the blue phone, what makes him different from all of the other company representatives that you speak with? It is actually the data and applications on the other end of the blue phone that creates a competitive advantage for Nationwide. (The man with the blue phone is part of Nationwide’s ad campaign called ‘The World’s Greatest Spokesperson in the World.’ He is the advocate for the customer.)

Through their use of Teradata products, Nationwide was able to move from millions to billions of different insurance policy price options, thus allowing them to better meet their customer’s needs. The project that allowed them to do this is known as Goal State Rate Management (GSRM).

Nationwide is one of the largest insurance companies in the United States. In 1998, they acquired Allied Insurance, an Iowa-based insurance company. Because of the differences in the way the two companies computed automobile insurance policy pricing, Nationwide needed to find a way to merge the data and processing methods from Allied’s systems into their own. This would be no easy task as the systems from both companies relied on their own custom-built applications and shared little in common.

The vision of the GSRM project was to integrate the automobile policy data of both Allied and Nationwide. The goal of the project was to provide a single version of the truth for automobile insurance policy data at Nationwide. GSRM was able to reduce processing times from months to seconds.

According to Laurel Elmore, Associate Vice President of Personal Lines Business Data and Technology at Nationwide, the goal of GSRM was to be “The best data, reporting and pricing tool in the property and casualty industry.” The benefits of GSRM include the creation of a single version of the truth for automobile policy information, the ability to provide users with a unified way to do reporting, improvement in data quality, and the ability to re-rate products in an almost real-time fashion.

This case describes the challenges that Nationwide faced with automobile policy pricing, describes the GSRM solution, and discussed the impact of GSRM.
COMPANY BACKGROUND

Nationwide, based in Columbus Ohio, is ranked #108 on the fortune 500 list. It is one of the strongest insurance organizations in the country. Nationwide has been in business for 85 years and has grown its business largely by acquiring companies with different product offerings and in geographic markets where Nationwide lacked a presence.

Insomuch that Nationwide’s expansion has occurred through acquisitions, their organizational structure has largely been that of a holding company with each business unit within the organization operating with autonomy. In addition, each of these business units operated their own data center. This decentralized structure allowed the various business units great flexibility in their operations as well as the management of their own data. This decentralization, however, had its own set of problems. It resulted in hundreds of legacy systems being scattered all over the country. The redundancy of data resulted in data integrity issues which made data analysis and analytics almost impossible.

Nationwide wanted to be able to analyze data across their business units in a much more integrated fashion. Their acquisition of Allied Insurance made Nationwide realize the severity of their data integration issues. Allied’s automobile policy pricing system was so different from Nationwide’s that it was allowed to operate separately for eight years. This disparity in automobile policy pricing limited Nationwide’s automobile product insurance business.

The granularity of the data in Allied’s system was vastly different from Nationwide’s systems. For example, Nationwide discovered that the way automobile insurance policies were calculated was different between the two systems. As a result, if a user wanted to create a company-wide report for automobile policies, they would have to run two separate reports, one for Allied and one for Nationwide, then combine the two manually.

As one might well imagine, the disparity in these two systems made it difficult for Nationwide to compete with rival insurance companies in the automobile policy area. Nationwide’s competition was able to provide more policy variety and better pricing options. To make matters worse, state insurance regulators were demanding statistics on policy re-pricing (Re-pricing is the process of changing the price of a policy based on changes to a policy holder’s circumstance,) which is typically done each quarter. The only way to address this legal issue was through better data integration.

Given the pressures from competitive and governmental, senior management at Nationwide realized that if they were to become a market leader they needed a way to standardize their data across the entire organization. They wanted to foster a data-driven culture which would allow them to better focus on the customer and allow the man with the blue phone to be ‘an advocate for the customer.’ As a result, this data-driven focus would allow Nationwide to manage customer retention better than it had in the past.

Nationwide set out on a journey to provide a single version of the truth for all of their policies. It was determined that the starting point would be to address automobile policies. As a result, Nationwide’s senior management created a team to determine how Allied’s automobile policy data and processes could be integrated into Nationwide’s operations. They wanted to bring policy and premium information
together into one system. To do this, Nationwide created the Goal State Rate Management (GSRM) Auto Team to drive the project. Figure one illustrates the creation of the GSRM initiative.

**GSRM: CREATING A SINGLE VERSION OF THE TRUTH**

Once the GSRM project was given the green light, the team set out to define the project structure in order to ensure that everyone on the team had a common understanding of the project and to ensure that the project would meet the goals of the organization. The components of the GSRM project are detailed in Figure two.

The GSRM project was defined as a set of business solutions that utilized an information layer which will be discussed later.
GSRM Business Solutions

The business solutions components of GSRM included Pricing Cycle Readiness, Portable On-Time Decisions (POD), Execution, and Monitoring.

Price Cycle Readiness (PCR) provides processes and tools to query data and perform statistical analysis on historical data. This component of GSRM is used to better understand trends and identify opportunities for rate changes. When rate change opportunities are identified, they are passed to the POD component.

Portable On-Time Decisions (POD) provides pricing and product managers with the tools required to conduct “what-if” analysis on potential rate changes for current policies. Based on this analysis, pricing and product managers can recommend an appropriate rate change action. When a decision has been made to implement a rate change, rate charts and other supporting documentation were passed to the Execute component.

Execute (Change) is a set of processes and tools that are used to review, approve, and implement a proposed rate change. Within Execute, all systems changes, regulatory filings, and communication activities are completed to finalize the rate change.

Monitor provides business and financial reporting to enable Nationwide to monitor and manage performance. Monitor provides the business with both regularly scheduled reports as well as ad-hoc reporting.

With the GSRM business solutions components identified, Nationwide realized that their current data model would not effectively support GSRM. In addition, Nationwide felt that they would need to bring in an external partner to help with the data integration effort required in the information layer mentioned above and bring more discipline to the GSRM development process. It was decided that Teradata would be the best fit to help with GSRM.

Teradata provided a data storage solution that better met Nationwide’s needs for the GSRM project. This involved the creation of a centralized integrated data warehouse that allowed Nationwide to gain a holistic view of any policy no matter where the original data came from. This data resides in the information layer in figure one.

GSRM Information Layer

The information layer for the GSRM solution is composed of five data components. It was designed to provide policy and claims, exposures, retention, and financial data. The information needed to support the business solutions of GSRM consisted of data from separate database components: short term database (STDB), long term database (LTDB), the focus database, data warehouse information layer, and the data warehouse foundation layer.

Short Term Database (STDB) provides policy and claims data for automobile and homeowners for the price and cycle readiness (PCR) solution to query data and perform statistical analysis on historical data for three to five years. Specifically three years of policy and claims data for automobile and five years data for homeowners.
Long Term Database (LTDB) also supports the price and cycle readiness (PCR) solution but provides 20 years of policy and claims data. This database contains highly summarized data that is used for long term trending and is sourced from the data warehouse foundation layer.

Focus Database provides financial metrics that enable Nationwide to monitor and manage performance. It provides the data for both scheduled and ad hoc business and financial reporting used by the Monitor solution.

Data Warehouse Information Layer provides transactional level data for solutions that monitor and manage business and financial performance as well as rater current policies. It consists of both physical and logical structures. Primarily the monitor solution and the portable on-time decisions (PODS) solution use the quote, exposures, policy and claims, and retention data in the data warehouse information layer. The short term database and the long term database, part of the pricing analytics data bases, are data marts fed by the data warehouse information layer.

Data Warehouse Foundation Layer also primarily provides data for the monitor solution and the portable on-time decisions (PODS) solution and stores quote, exposures, policy and claims, and retention data. This component provides the base data layer for the creation of metrics and analyses for GSRM and contains eight years of data. It takes data from separate stove piped legacy solutions, such as the NAPS and FIPS policy processing systems (see figure two), and integrates them to single integrated data solution.

THE IMPACT OF GSRM

Prior to the implementation of GSRM, users often had to utilize separate tools to gain access to the information that they needed for reporting. This necessitated that these users combine information manually from two separate systems. The primary goal of GSRM was to allow the integration of both data and processing from these two systems. GSRM provides consistency in pricing, reporting, and re-rating products. In addition, users now have access to data that is updated daily rather than monthly. This has proven to be so popular that Nationwide is investigating that ability of doing real-time data updates.

Nationwide feels that their user base has grown to be very sophisticated. With GSRM, user are now viewed to be ‘data analysts’, rather than ‘data gathers.’ Metrics and KPI’s are delivered to users based on their role in the organization. The users then create their own reports. This is what Nationwide refers to as a ‘self-service reporting structure.’

GSRM has greatly improved business users ability to analyze and react to changing market conditions. It allows them to re-rate products without having to wait several months for a full rating cycle. Re-rating also involves studying the impact of proposed rate changes on the organization. During this re-rating process analysts can accurately determine the impact of a rate change on customers (i.e., will the customer leave, will they change their coverage, etc.) This re-rating analysis was difficult to perform prior to the implementation of GSRM and has led to higher customer retention.

As a result of GSRM, data quality has improved immensely. It was discovered during the early phases of the GSRM project that premiums were calculated differently when Allied’s system operated independently of Nationwide’s. GSRM has created a single version of the truth for Nationwide. In
addition, due to the success of the GSRM project, senior management at Nationwide is now investigating the creation of an enterprise data warehouse.

Prior to GSRM, between 20 and 40 percent of automobile policies had duplicate data. GSRM was able to eliminate the majority of this data redundancy and thereby reduce hardware costs and headcount. GSRM has also allowed for efficiencies, which make for much faster processing.

Specific quantitative benefits of the GSRM system include:

- $1.77 million savings in storage costs
- $67 thousand savings in processing costs
- $170 thousand savings in support costs
- A total of $2 million in annual savings
- Load processing reduced from 65 days to 38 seconds.
- Certified quality data available for end users

Appendix B:

Individual HW #4: Answer the following questions regarding the Nationwide’s GSRM system in the Nationwide’s case. Use lecture slides for data security as a reference. Once you are done, submit your answers in Word or PDF on Canvas > Assignments > Individual Homework 4, by the due date.

Submissions (name your files as: lastnameFirstname_hwX):

Due by: June 25, 11:59 pm

Questions:

Identify and explain the critical risk data (CRD) in the case.

What types of data security restrictions should be in place for the GSRM system and Nationwide? Explain.

Create a CRUD matrix for GSRM system. You can use the data entities in your DFD diagram from individual HW #3. Explain each cell in the CRUD matrix where an element of CRUD is identified and explain the reasons behind it. For example, if in the intersection of data entity1 and process1, you have identified RU, explain why RU from the security perspective.

Appendix C:

Professional Ethical Framework
This essay allows students to summarize what their ethical framework is as an IT professional. It should include:

- A statement of your own personal ethical philosophy.
- Your own Professional Code of Ethics.

The initial statement should be between half a page and one page long. Here you will talk about what/who influenced you in forming your personal philosophy. There might be a teacher, a coach, religious leader, aunt/uncle and certainly your parents, who helped mold who you are. What did they instill in you, how has that changed you? There might also be an event, either in the news or in your personal life, that affected how you view the world. This will be in ‘first person’ (I/me) as it is a personal journey. This will not be shared with anyone, I consider it to be a private introspection.

The code of ethics is the rule set that you consult when making a decision. I am looking for eight to twelve principles that guide your decision making in the professional world. This will be a bulletized list. Below are a few examples:

1. I will not misuse information to which I have access to in the course of my duties.
2. I will maintain the confidentiality of all information in my possession or to which I have access.
3. I will conduct myself in accordance with the highest standards of moral, ethical and legal behavior possible.
4. I will always strive to improve my professional competence. I will advance my knowledge and skills, learn from the ideas and experiences of others and pursue endeavors that I am passionate about.
5. I will not misuse or abuse any privileges I am afforded as part of my professional responsibilities.

Appendix D:

**MSIS 681 Course Project**

Starting with the first session, we will be talking about what makes a good capstone project. This will depend upon the interests and background of each student. The final project is due in Week #7.

At its core will be a current or past issue of your choosing which involves Information Systems, has both ethical and social dimensions, and can be researched on the Internet. Essential to the capstone project is a description of the basic facts of the matter, the primary players who could either take action or were impacted, analyzing the issue from three ethical frameworks (of your choosing), stating your personal ethical response, and development of future considerations as technology continues to develop.

The project proposal (Due in Week #2) shall contain a short description of the ethical issue that you intend to explore. The final report shall refine and expand on this description and players involved, and address the remaining items listed above.
The structure of the final paper is as follows:

1. Introduction:
   a. Description of Issue
   b. Thesis Statement
2. Underpinnings of the Issue:
   a. Philosophical and/or Social
   b. Business
   c. Technological
3. Analysis of the issue from three ethical frameworks:
   a. Framework One (your choice)
   b. Framework Two (your choice)
   c. Framework Three (your choice)
4. Personal Ethical Response:
   a. Description
   b. Supporting rationale
5. Conclusions:
   a. Final Analysis Points
   b. Applications to the IT Field
   c. Questions for Future Research.

**Project Presentation**

The presentation must be a succinct description of all aspects of the project. At the end of each presentation, students will entertain questions from the class, as well as statements of opposing positions. Respect for the ethical stance of others is essential.