

## IT 201 Final Project Guidelines and Rubric

### Overview

Basic knowledge of computers is practically essential for productively engaging in twenty-first-century life. Working knowledge of computer platform technologies impacts everyone from help desk personnel and field technicians to project managers and business executives. In order to make sound business decisions, one must have the ability to analyze business needs and compare available computer technology options for effectively meeting those needs.

In this final project, you will assume the role of a tech consultant hired by an entrepreneur trying to start a small business. As a part of opening her business, she needs help identifying the business's information technology needs, weighing options for meeting those needs, and making final decisions that, together, create a sound IT infrastructure for her small business. The major areas for evaluation and selection include hardware components, software applications, networking options, and information security. This document contains a table that will help you find the resources needed to address each critical element successfully; this table is located below the critical elements of the final project. Your decision-making process and specific selections will come together in a final IT Consultation Report.

This assessment addresses the following course outcomes:

- Assess common hardware and software issues by logically applying fundamental IT tools and methods
- Determine basic hardware and software options that meet general technology needs for organizations
- Illustrate appropriate network and multi-user operating system methods that support key business objectives
- Identify information security procedures that reflect best practices for managing access and reducing risk to digital information stores

**Scenario:** You have been hired as an IT consultant by an entrepreneur starting a small advertising company called MilleniAds. As a start-up, your client's company is relatively small and has a limited budget. There are only 10 employees, including a few creative directors, graphic designers, sales staff, a financial accountant, and an office administrator, with the entrepreneur acting as CEO. The current IT budget cannot exceed \$25,000 and ideally should come in as far under that number as possible. MilleniAds will produce customized sales flyers, brochures, and other branded items, such as letterhead and business cards, that apply a youthful, fresh perspective targeting millennial demographics. Therefore, the company needs the ability to store and manipulate digital images and to produce physical copies of their products for their clients. The CEO wants to keep track of inventory, sales, and expenses digitally, but she does not anticipate having very complex records for the first year. She projects having only a dozen or so accounts but hopes to scale up in the coming years. It would be ideal to have a simple and user-friendly system for sharing information and files between employees. Many of the employees are millennials themselves who have indicated that their current desktop PCs are limiting their capabilities and that they prefer using their phones and other mobile devices for their professional and personal responsibilities. Two of the ten employees will operate primarily outside of the office, soliciting business from regional firms, and they will need to access company information while on the road, in their home offices, and at customer sites.

Beyond the specific information given above, you have the ability to fill in the gaps with assumptions or additional details that will make your final project unique and meaningful to you. If you have any questions, reach out to your instructor for guidance, and use the milestone assignments to ensure that you are completing your project within reasonable parameters for the course.

## Prompt

Given the scenario above, what are the best hardware, software, networking, and information security options for addressing your client's business needs?

Specifically, the following **critical elements** must be addressed:

- I. **Business Needs:** In this section, list and describe all of the business needs that you have been able to determine given the information in the provided scenario and your own choices for filling in the gaps. Be sure that you provide enough detail to fully support the rest of your report.
- II. **Hardware Components**
  - A. Examine the business's issues to determine specific hardware **requirements**. Based on these issues, what are the major categories and components of hardware that should be considered? Identify each of the applicable requirements (hard drive storage, video cards, etc.), being sure to cite specific examples wherever appropriate.
  - B. Then, **compare and contrast** the various options for meeting the requirements. Be sure to cite specific evidence from the component specification fact sheets to support your evaluation. What are their functional strengths and weaknesses? How do they compare in terms of cost and maintainability?
  - C. Compose a final list detailing all of your specific hardware **recommendations** for your client. Be sure to logically justify your proposal as the best possible choice for meeting the business requirements.
- III. **Software Applications**
  - A. Examine the business's issues to determine specific software **requirements**. What are the types of software applications that should be considered? Identify multiple possible options within each category, being sure to cite specific examples wherever appropriate.
  - B. Then, **compare and contrast** the options you have listed. Be sure to cite specific evidence that supports your evaluation. What are their functional strengths and weaknesses? How do they compare in terms of cost, vendor credibility, multi-user access, technical support, and integration?
  - C. Compose a final list detailing all of your specific software **recommendations** for your client. Be sure to logically justify your proposal as the best possible choice for meeting the business requirements.
- IV. **Networking Options**
  - A. Examine the business's issues to determine network **requirements**. Illustrate your response with specific examples. For example, to what extent should there be access inside the business for mobile devices and remote personnel?
  - B. Then, **compare and contrast** the options for meeting the requirements. Be sure to cite specific evidence that supports your conclusions. How would you ensure security of information over the network? Which type of network connection is preferable?

- C. Make final **recommendations** for network solutions based on your evaluation of the options. Be sure to logically justify your proposal as the best possible choice for meeting the business requirements.

V. **Maintenance and Security**

- A. Interpret the business’s needs to determine specific information regarding security **requirements**. Illustrate your response with specific examples. To what extent should unauthorized individuals be prevented from making changes, copying, or deleting files or data on the system? Is there sensitive data for which access must be controlled? What sort of information should be backed up?
- B. Then, compare and contrast the options for **managing user access** to company information. Evaluate each option for its strengths and weaknesses, citing specific evidence that supports your conclusions. Is there a need to have password setups for files? What type of naming conventions should the client use for files and directories? Should individual computer accounts be created? Should everyone have read access to all files?
- C. Finally, compare and contrast the options for **backing up and storing information**, including how often to back up information, storage location, and who should have access to backing up the data. Evaluate each option for its strengths and weaknesses, citing specific evidence that supports your evaluation.

- VI. **Future Considerations:** Imagine that your client may need to add a new branch or otherwise scale up her business. How would that change your hardware and software recommendations? Illustrate your response with specific examples and evidence.

The table below will help you find the resources you need to address the critical elements of the final project.

Critical Element Section	TestOut Support (or Website)
I	None: Read the Scenario
II	1.3.2 Computing Facts
	1.4.2 Windows Systems Facts
	3.2.2 Power Supply Facts
	3.3.2 Motherboard Facts
	3.4.2 CPU Facts
	3.4.3 CPU Performance Facts
	3.7.3 RAM Facts
	3.12.2 Video Card Fact
	3.13.3 Sound Card Facts
	5.1.2 Storage Device Facts
III	<a href="#">Visions of the Future: Two Success Strategies for Software Selection</a>
	<a href="#">Your New PC Needs These 15 Free, Excellent Programs</a>
	9.6.3 Applications Management Facts
	9.8.3 Digital Content Management Facts

IV	6.1.4 Networking Facts
	6.8.3 Wireless Networking Facts
	6.10.2 Internet Connection Facts
	6.13.2 HomeGroup Facts
	8.6.2 Mobile Device Connection Facts
	9.5.3 Remote Desktop Facts
V	9.4.3 User and Group Facts
	9.4.8 Manage UAC Facts
	6.8.4 Wireless Security
	12.8.2 Wired Network Security Facts
	9.10.2 Backup Facts
	9.11.4 System Protection Facts
	9.12.8 System Recovery Facts
	11.1.2 File Location Facts
	11.4.5 Shared Folder Facts
	12.1.2 Workstation Security Facts
VI	None

You will need to incorporate all instructor feedback that you have received for your final project. Note that you will complete milestones related to most of the final project's critical elements, but there are two sections (V and VI) that you will submit only once as part of your final project submission in Module Seven.

## Milestones

### Milestone One: Identify Business Needs

In **Module Two**, you will submit a list and description of all of the business needs that you have been able to determine given the information in the provided scenario and your own choices for filling in the gaps. **This milestone will be graded with the Milestone One Rubric.**

### Milestone Two: Hardware Components

In **Module Three**, you will submit an examination of the business's issues to determine specific hardware requirements. **This milestone will be graded with the Milestone Two Rubric.**

### Milestone Three: Software Applications

In **Module Four**, you will submit an examination of the business's issues to determine specific software requirements. **This milestone will be graded with the Milestone Three Rubric.**

### Milestone Four: Networking

In **Module Five**, you will submit an examination of the business’s issues to determine specific network requirements. **This milestone will be graded with the Milestone Four Rubric.**

Final Submission: IT Consultation Report

In **Module Seven**, you will submit your final project. It should be a complete, polished artifact containing **all** of the critical elements of the final product. It should reflect the incorporation of feedback gained throughout the course. **This submission will be graded with the Final Project Rubric.**

### Deliverables

Milestone	Deliverable	Module Due	Grading
One	Identify Business Needs	Two	Graded separately; Milestone One Rubric
Two	Hardware Components	Three	Graded separately; Milestone Two Rubric
Three	Software Applications	Four	Graded separately; Milestone Three Rubric
Four	Networking	Five	Graded separately; Milestone Four Rubric
	Final Submission: IT Consultation Report	Seven	Graded separately; Final Project Rubric

## Final Project Rubric

**Guidelines for Submission:** Your IT Consultation Report should be 5–10 pages in length (plus a cover page and references) and double spaced, with 12-point Times New Roman font and one-inch margins.

Critical Elements	Exemplary (100%)	Proficient (85%)	Needs Improvement (55%)	Not Evident (0%)	Value
<b>Business Needs</b>	Meets “Proficient” criteria and fully qualifies the business needs to create a strong foundation for the report	Lists and describes all of the business needs based on the scenario and choices for filling in the gaps, with enough detail to fully support the rest of the report	Lists and describes the business needs, but there are gaps in necessary detail or issues of accuracy or plausibility	Does not list and describe the business needs	4.75
<b>Hardware Components: Requirements</b>	Meets “Proficient” criteria and demonstrates an advanced ability to apply fundamental IT problem-solving methods	Examines the business’s issues to determine specific hardware requirements and cites relevant examples	Examines the business’s issues, but fails to determine specific hardware requirements using relevant examples	Does not examine the business’s issues to determine hardware requirements	4.75
<b>Hardware Components: Compare and Contrast</b>	Meets “Proficient” criteria and demonstrates an advanced ability to apply fundamental IT problem-solving methods	Compares and contrasts the various options for meeting the requirements and cites specific evidence from the component specification fact sheets to support their evaluation	Compares and contrasts the options for meeting the requirements, but there are gaps in necessary detail, or submission fails to fully support the evaluation with specific evidence	Does not compare and contrast the options for meeting the requirements	4.75
<b>Hardware Components: Recommendations</b>	Meets “Proficient” criteria and demonstrates a nuanced understanding of basic hardware options	Composes a final list detailing all of the specific hardware recommendations and logically justifies the proposal as the best possible choice for meeting the business requirements	Composes a final list of the specific hardware recommendations, but list is incomplete, contains inappropriate recommendations, or is not fully justified given the business requirements	Does not compose a final list of the hardware recommendations for meeting the business requirements	7.92
<b>Software Applications: Requirements</b>	Meets “Proficient” criteria and demonstrates an advanced ability to apply fundamental IT problem-solving methods	Examines the business’s issues to determine specific software requirements and cites relevant examples	Examines the business’s issues but fails to determine specific software requirements using relevant examples	Does not examine the business’s issues to determine software requirements	4.75

<b>Software Applications: Compare and Contrast</b>	Meets “Proficient” criteria and demonstrates an advanced ability to apply fundamental IT problem-solving methods	Compares and contrasts the various options for meeting the requirements and cites specific evidence that supports the evaluation	Compares and contrasts the options for meeting the requirements, but there are gaps in necessary detail, or submission fails to fully support the evaluation with specific evidence	Does not compare and contrast the options for meeting the requirements	4.75
<b>Software Applications: Recommendations</b>	Meets “Proficient” criteria and demonstrates a nuanced understanding of basic software options	Composes a final list detailing all of the specific software recommendations and logically justifies the proposal as the best possible choice for meeting the business requirements	Composes a final list of the specific software recommendations, but list is incomplete, contains inappropriate recommendations, or is not fully justified given the business requirements	Does not compose a final list of the software recommendations for meeting the business requirements	7.92
<b>Networking Options: Requirements</b>	Meets “Proficient” criteria and demonstrates advanced knowledge of network and multiuser operating system methods	Examines the business’s issues to determine specific networking requirements and cites relevant examples	Examines the business’s issues but fails to determine specific networking requirements using relevant examples	Does not examine the business’s issues to determine networking requirements	7.92
<b>Networking Options: Compare and Contrast</b>	Meets “Proficient” criteria and demonstrates advanced knowledge of network and multiuser operating system methods	Compares and contrasts the various options for meeting the requirements and cites specific evidence that supports the evaluation	Compares and contrasts the options for meeting the requirements, but there are gaps in necessary detail, or submission fails to fully support the evaluation with specific evidence	Does not compare and contrast the options for meeting the requirements	7.92
<b>Networking Options: Recommendations</b>	Meets “Proficient” criteria and demonstrates advanced knowledge of network and multiuser operating system methods	Composes a final list detailing all of the specific networking solution recommendations and logically justifies the proposal as the best possible choice for meeting the business requirements	Composes a final list of the specific networking solution recommendations, but list is incomplete, contains inappropriate recommendations, or is not fully justified given the business requirements	Does not compose a final list of the networking solution recommendations for meeting the business requirements	7.92
<b>Maintenance and Security: Requirements</b>	Meets “Proficient” criteria and demonstrates deep knowledge of best practices for managing access and reducing risk to digital information stores	Interprets the business’s needs to determine specific information security requirements and cites relevant examples	Interprets the business’s needs but fails to determine specific information security requirements using relevant examples to illustrate	Does not interpret the business’s needs to determine information security requirements	7.92

<b>Maintenance and Security: Managing User Access</b>	Meets “Proficient” criteria and demonstrates deep knowledge of best practices for managing access and reducing risk to digital information stores	Compares and contrasts the various options for meeting the requirements and cites specific evidence that supports the evaluation	Compares and contrasts the options for meeting the requirements, but there are gaps in necessary detail, or submission fails to fully support the evaluation with specific evidence	Does not compare and contrast the options for meeting the requirements	7.92
<b>Maintenance Security: Backing Up and Storing Information</b>	Meets “Proficient” criteria and demonstrates deep knowledge of best practices for managing access and reducing risk to digital information stores	Compares and contrasts the various options for meeting the requirements and cites specific evidence that supports the evaluation	Compares and contrasts the options for meeting the requirements, but there are gaps in necessary detail, or submission fails to fully support the evaluation with specific evidence	Does not compare and contrast the options for meeting the requirements	7.92
<b>Future Considerations</b>	Meets “Proficient” criteria and demonstrates a nuanced understanding of basic hardware and software options	Proposes reasonable future considerations for the hardware and software recommendations and cites specific examples and evidence to illustrate	Proposes future considerations for the hardware and software recommendations, but proposal is missing necessary detail or does not include specific and reasonable examples or evidence to illustrate	Does not propose future hardware and software considerations	7.92
<b>Articulation of Response</b>	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	4.97
<b>Total</b>					<b>100%</b>