IB Computer Science

Unit 1

System Development

Student_____

Date: _____

System Evaluation and Selection

Objectives

- Discuss the role that technical, economic, legal, operational and schedule (TELOS) feasibility factors play in determining system value.
- Discuss the role that productivity, differentiation, and management (PDM) strategic factors play in determining system value.
- Describe the maintainability, usability, reusability, reliability, and extendability (MURRE) design factors and show how they help to determine system value.
- Define cost/benefit analysis and describe its use in financially evaluating general system design alternatives.
- Prepare the System Evaluation and Selection Report

Determine the TELOS Feasibility Score

- Rating Technical Feasibility
  - Uses established well-known technology ?
  - New technology platform required?
  - New technology is first release by vendor?
  - Multiple vendors involved?
  - Complex networked system?
- Rating Economic Feasibility
  - Total commitment from top management?
  - Total development funds allocated and committed?
- Rating Legal Feasibility
  - Corporate counsel satisfied with the system as related to regulations, privacy, industry compliance?
  - Controls in place?
- Rating Operational Feasibility
  - Narrow scope with few interfaces?
  - New global-based system with many interfaces and users?
  - Automates a know process?
  - Automates a unique, unknown process?
  - Involves knowledgeable and commit workers
- Rating Schedule Feasibility
  - Total development time measure in Hours? Days? Weeks? Months? Years?
  - System project team uses advanced techniques?
  - Systems project team has high level of expertise and motivation?

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Determine the PDF Strategic Factors Rating

- Productivity
  - Coordinated tasks?
  - Easy and quick access to data/database?
  - Automated transaction processing?
  - Automated low-level tasks?

- Differentiation
  - Style, price, quality, or uniqueness of product or service affected?
  - Inventory control improved?
  - Order processing and tracing customer orders improved?
  - Company's image enhanced?
- Management
  - Provides high-quality information in both form and substance?
  - Supports budgeting and planning functions?
  - Gives timely feedback about operations for corrective action?
  - Gives status information?
  - Gives early warning signs?
  - Discloses conflicts?
  - Assists decision-making tasks

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Rating MURRE Design Factors

M_____

1.

2.

3.

4.

5.

U_____

1.

2.

R_____

1.

2.

3.

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Rating MURRE Design Factors

R_____

1.

2.

3.

4.

5.

6.

E_____

1.

2.