Figure 4.1: Occurrence of Errors during the SDLC

Systems Development Phase in which Errors Occur

Percentage of errors

Analysis   Design   Implementation   Operation

Systems Development Phase in which Errors Occur
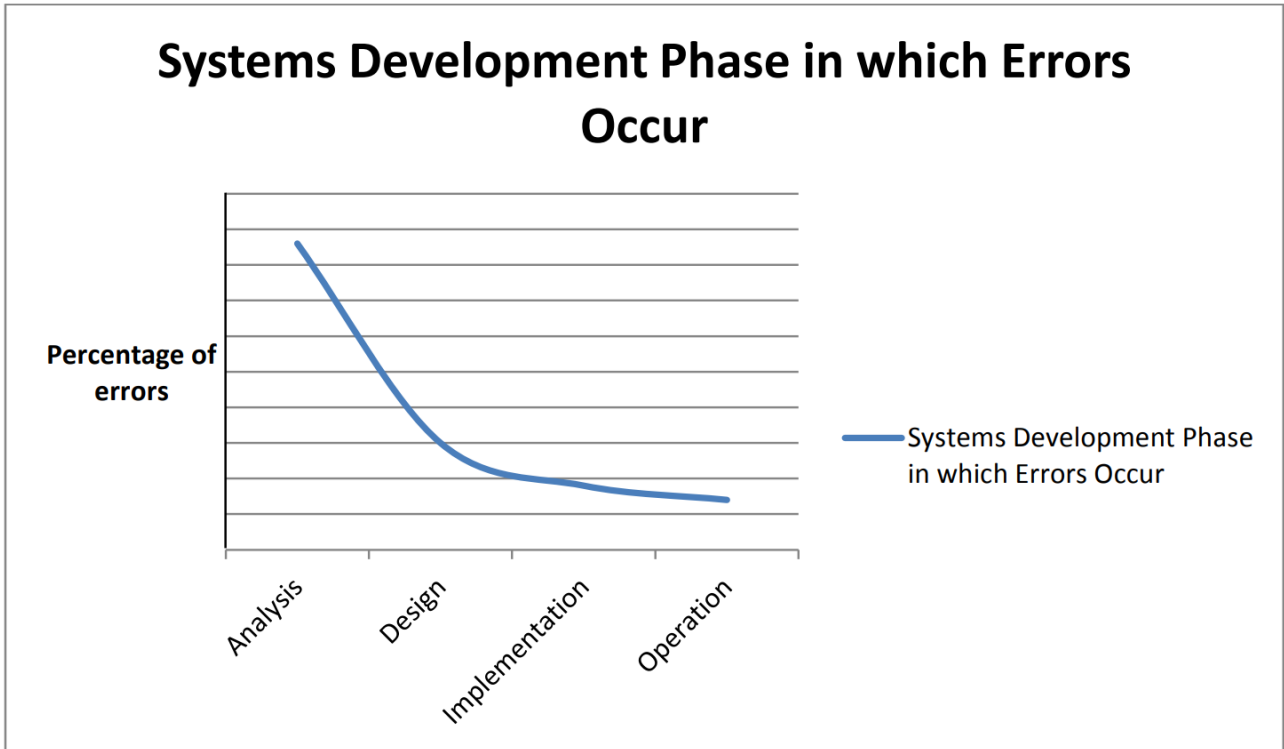
Figure 4.2: Cost to Fix an Error or Make a Change during the SDLC

Systems Development Phase in which Errors are Detected

Cost to fix an error or make a change

— Systems Development Phase in which Errors are Detected

Analysis   Design   Implementation   Operation
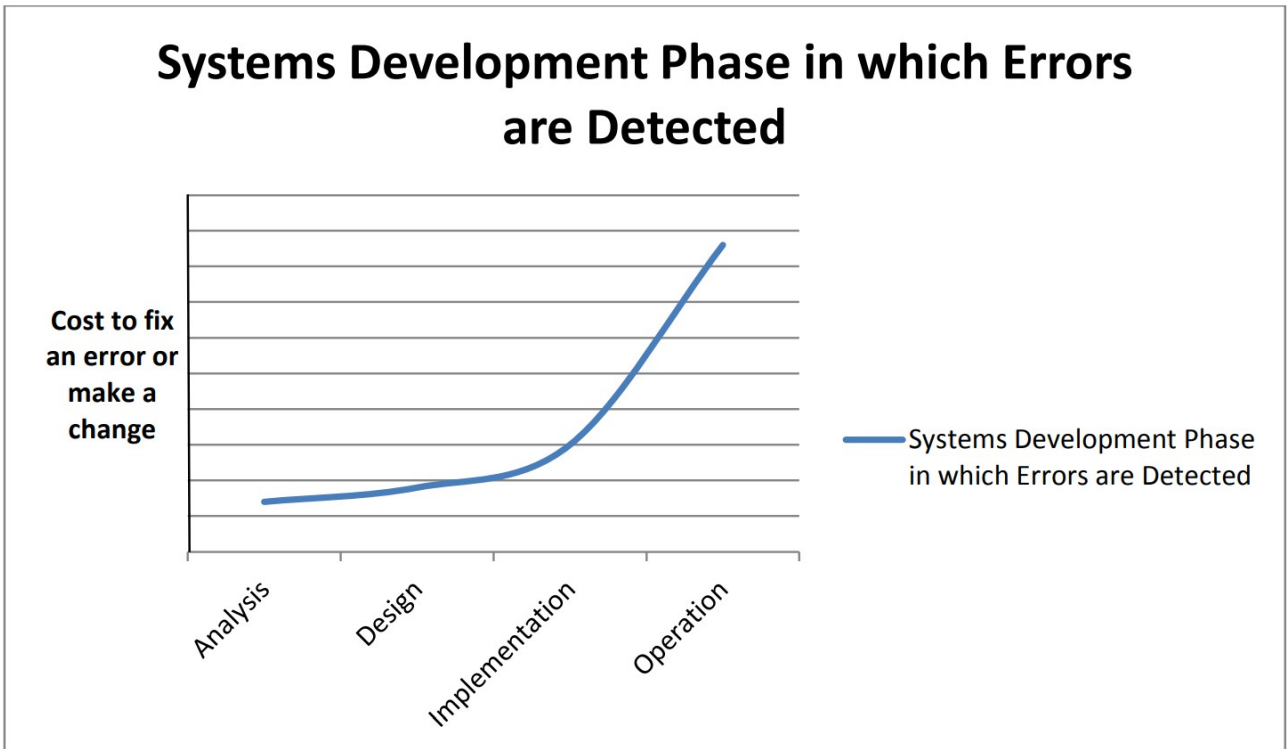
An example of a logical data flow diagram (DFD)

Customer

Payment

1.0
Receive
payment

Receipts and
receipts
summary

3.0
Compare
cash and
tape with
sales data

Sales record

Validated
receipts

2.0
Record
sale

Sales
summary

4.0
Prepare
deposit

Sales data

Deposit

Inventory data

Bank
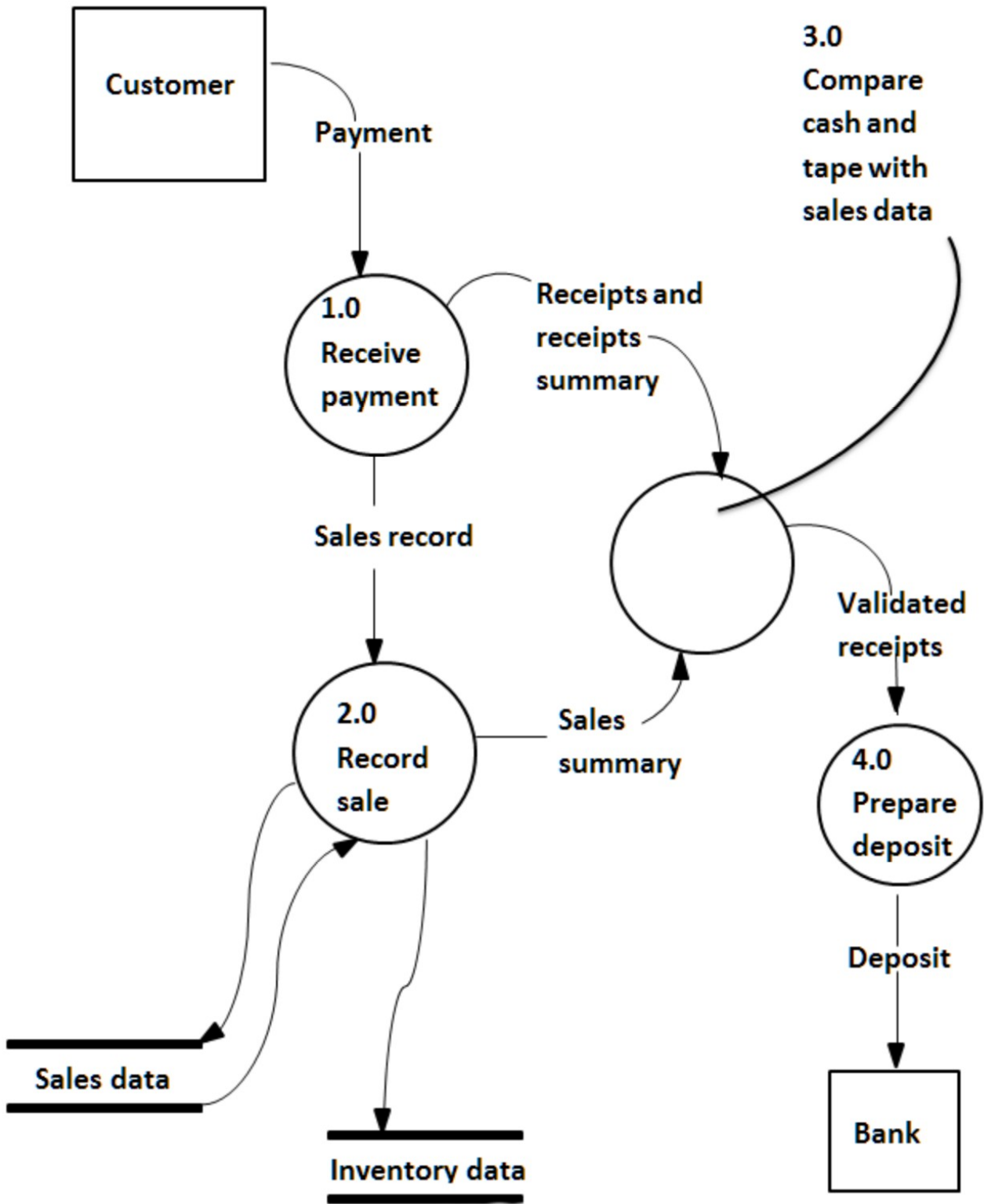
An example of a Logical DFD

Table 4.1:

Physical Requirements Used in Systems Selection		
Data Requirements:	**Operations Requirements:**	**Management Requirements:**
• Database size, growth, activity, access requirements, and update frequency • Event volume and expected growth, and sources (internal, external)	• Peripherals, such as printers, scanners, or PCs • Communications (LANs, Internet, security requirements) • Backup and security • Output distribution, uses, media, and formats	• Processing approaches (distributed, centralized) • Reliability (e.g., mean time between failure) • Response time requirements