

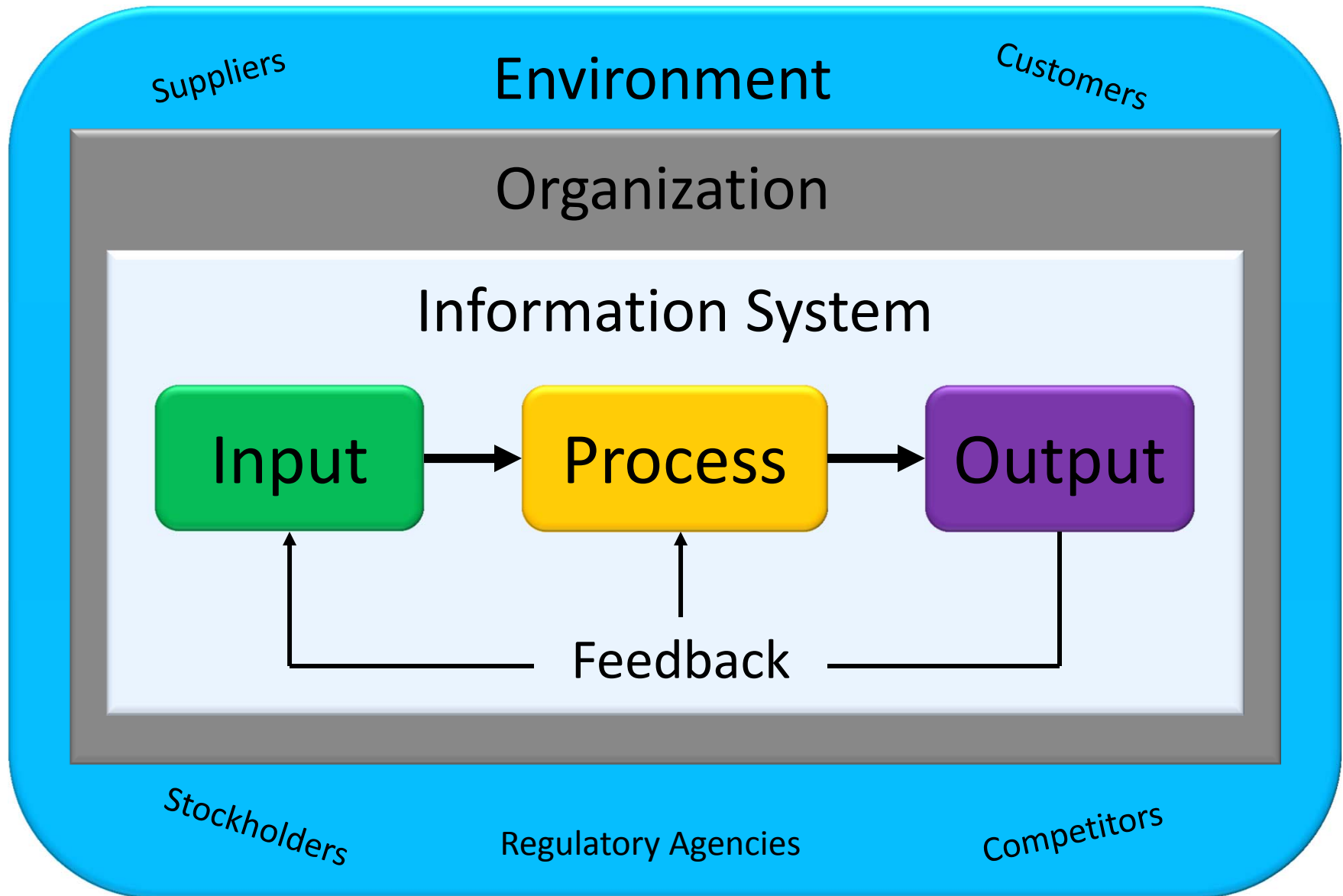
BUS 101

Dr. Dave Croasdell
Dr. Chad Anderson

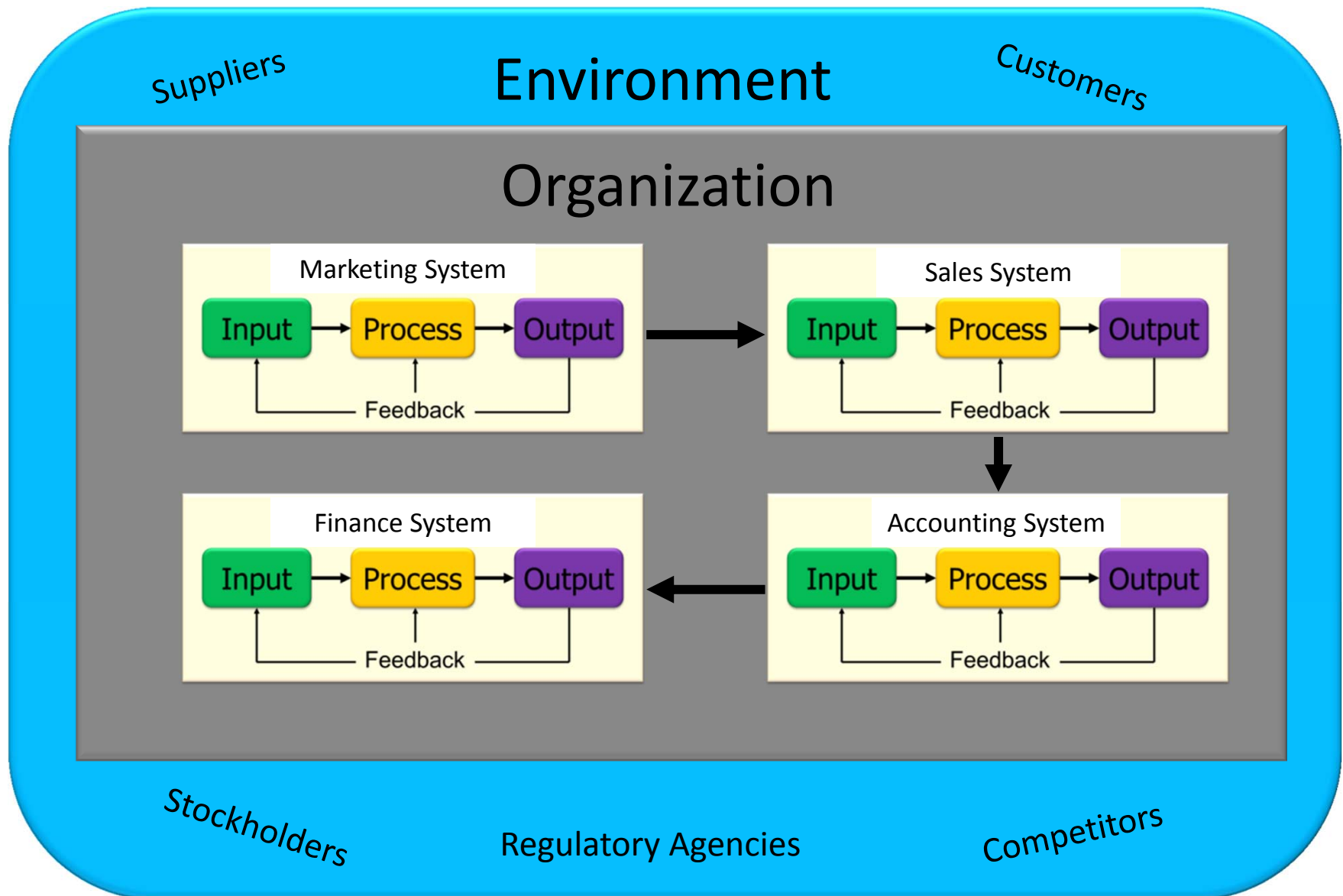
Topics for Today

- How important are technology-based information systems to business?
- What do I need to know about these systems?
- What does a person actually do when they specialize in this field?
- What should I do if I'm interested in this stuff?

Information System



Information Systems



Information Systems Jobs

Chief Information Officer

Test Engineer

IT Project Manager

Technical Writer

Database Administrator

Help Desk

Network Administrator

Computer Technician

Systems Analyst

Network Security Consultant

Application Developer

Business Intelligence Analyst

Software Engineer

Mobile Manager

Programmer

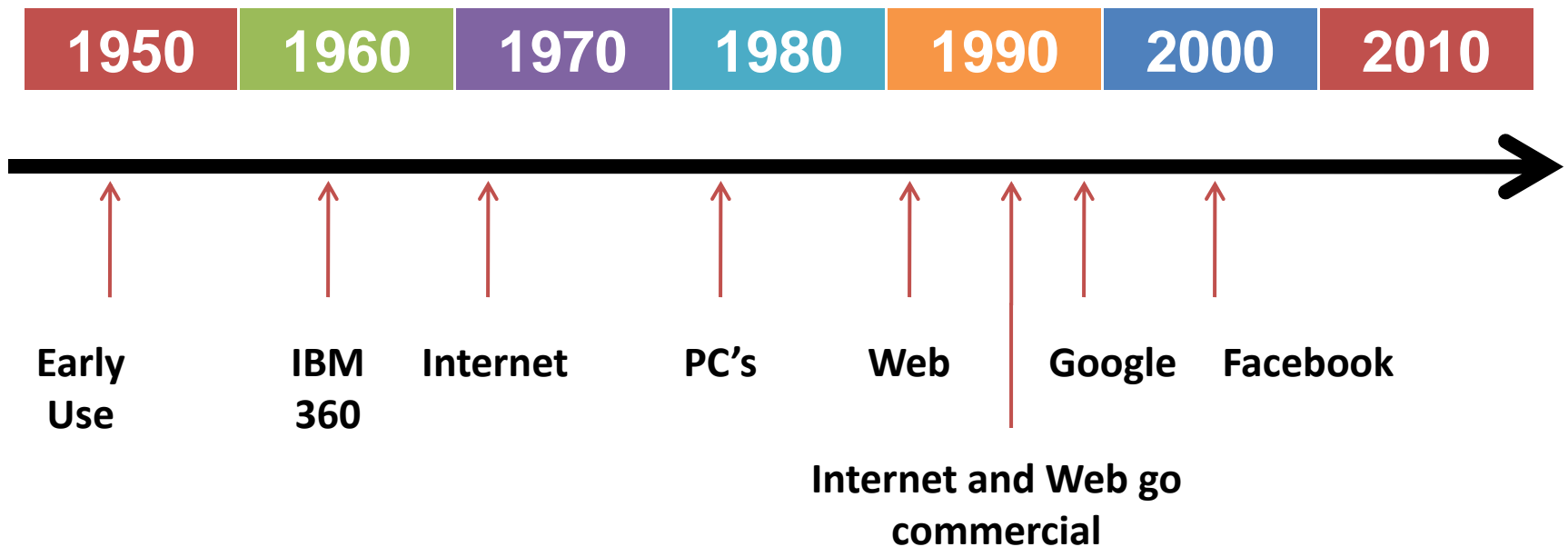
Web Developer

[Computer and Information Technology Occupations](#)

Quiz

What do you know about
Information systems?

Computer Use is Fairly New



World Internet Usage

WORLD INTERNET USAGE AND POPULATION STATISTICS December 31, 2011						
World Regions	Population (2011 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000-2011	Users % of Table
Africa	1,037,524,058	4,514,400	139,875,242	13.5 %	2,988.4 %	6.2 %
Asia	3,879,740,877	114,304,000	1,016,799,076	26.2 %	789.6 %	44.8 %
Europe	816,426,346	105,096,093	500,723,686	61.3 %	376.4 %	22.1 %
Middle East	216,258,843	3,284,800	77,020,995	35.6 %	2,244.8 %	3.4 %
North America	347,394,870	108,096,800	273,067,546	78.6 %	152.6 %	12.0 %
Latin America / Carib.	597,283,165	18,068,919	235,819,740	39.5 %	1,205.1 %	10.4 %
Oceania / Australia	35,426,995	7,620,480	23,927,457	67.5 %	214.0 %	1.1 %
WORLD TOTAL	6,930,055,154	360,985,492	2,267,233,742	32.7 %	528.1 %	100.0 %

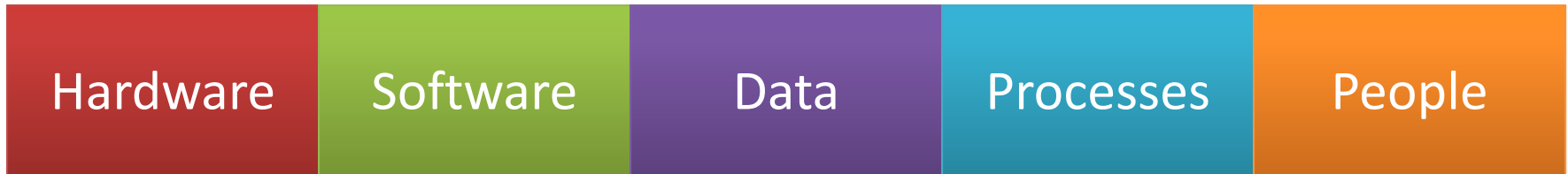
NOTES: (1) Internet Usage and World Population Statistics are for December 31, 2011. (2) CLICK on each world region name for detailed regional usage information. (3) Demographic (Population) numbers are based on data from the [US Census Bureau](#) and local census agencies. (4) Internet usage information comes from data published by [Nielsen Online](#), by the [International Telecommunications Union](#), by [GfK](#), local Regulators and other reliable sources. (5) For definitions, disclaimers, and navigation help, please refer to the [Site Surfing Guide](#). (6) Information in this site may be cited, giving the due credit to [www.internetworldstats.com](#). Copyright © 2001 - 2012, Miniwatts Marketing Group. All rights reserved worldwide.

IS Employment Prospects are Excellent!

Occupational title	Employment 2006	Projected employment 2016	Change 2006-2016	
Computer software engineers	507,000	733,000	226,000	45%
Computer support specialists	862,000	1,016,000	155,000	18%
Computer systems analysts	504,000	650,000	146,000	29%
Network systems analysts	262,000	402,000	140,000	53%
Network administrators	309,000	393,000	83,000	27%
Database administrators	119,000	154,000	34,000	29%
Computer specialists, all other	136,000	157,000	21,000	15%

Information Systems

Information System Components



Management Information Systems

The development and use of information systems that help businesses achieve their goals and objectives

Company Comparison

Company	Year Started	Number of Employees	Market Cap (Billions)
Apple	1976	60,000	\$635.64
Coca Cola	1886	140,000	\$172.47
Ford	1903	198,000	\$38.48
General Mills	1928	35,000	\$25.83
Google	1998	54,000	\$246.60
IBM	1910	355,000	\$235.73
Microsoft	1975	90,000	\$253.18
Toyota	1933	321,000	\$126.72
Wal-mart	1945	2,100,000	\$248.88

Year Started

Company	Year Started	Number of Employees	Market Cap (Billions)
Coca Cola	1886	140,000	\$172.47
Ford	1903	198,000	\$38.48
IBM	1910	355,000	\$235.73
General Mills	1928	35,000	\$25.83
Toyota	1933	321,000	\$126.72
Wal-mart	1945	2,100,000	\$248.88
Microsoft	1975	90,000	\$253.18
Apple	1976	60,000	\$635.64
Google	1998	54,000	\$246.60

Number of Employees

Company	Year Started	Number of Employees	Market Cap (Billions)
Wal-mart	1945	2,100,000	\$248.88
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Market Capitalization

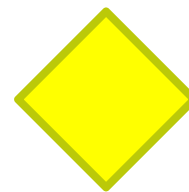
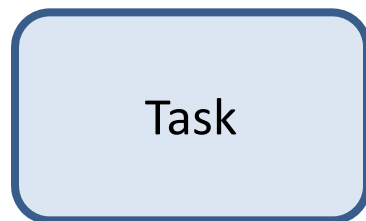
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BPM

Business Process
Management

Business Process Management

- **Business Process Management (BPM):** a systematic process of creating, assessing, and altering business processes
- **Business process modeling:** the activity of creating a detailed map of a work process that shows its inputs, tasks, and outputs in a structured sequence
- **Business Process Modeling Notation (BPMN):** pools and swim lanes to organize the process, along with three basic shapes with specializations within each shape

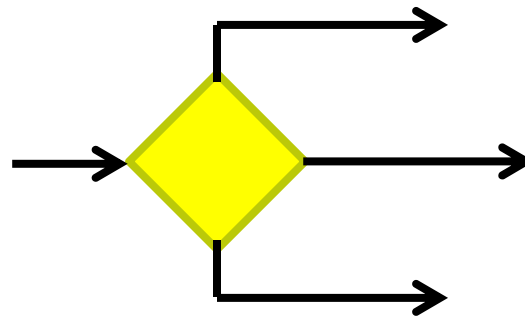
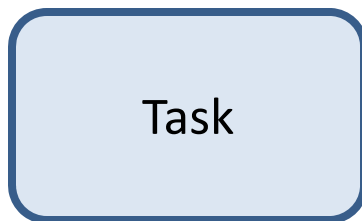


Gateway
(Decision)

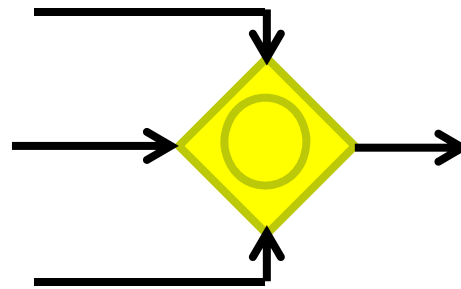


Event

BPMN Shapes Variety



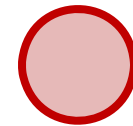
Exclusive (XOR)
Decision



Inclusive OR
Merge



Start Event



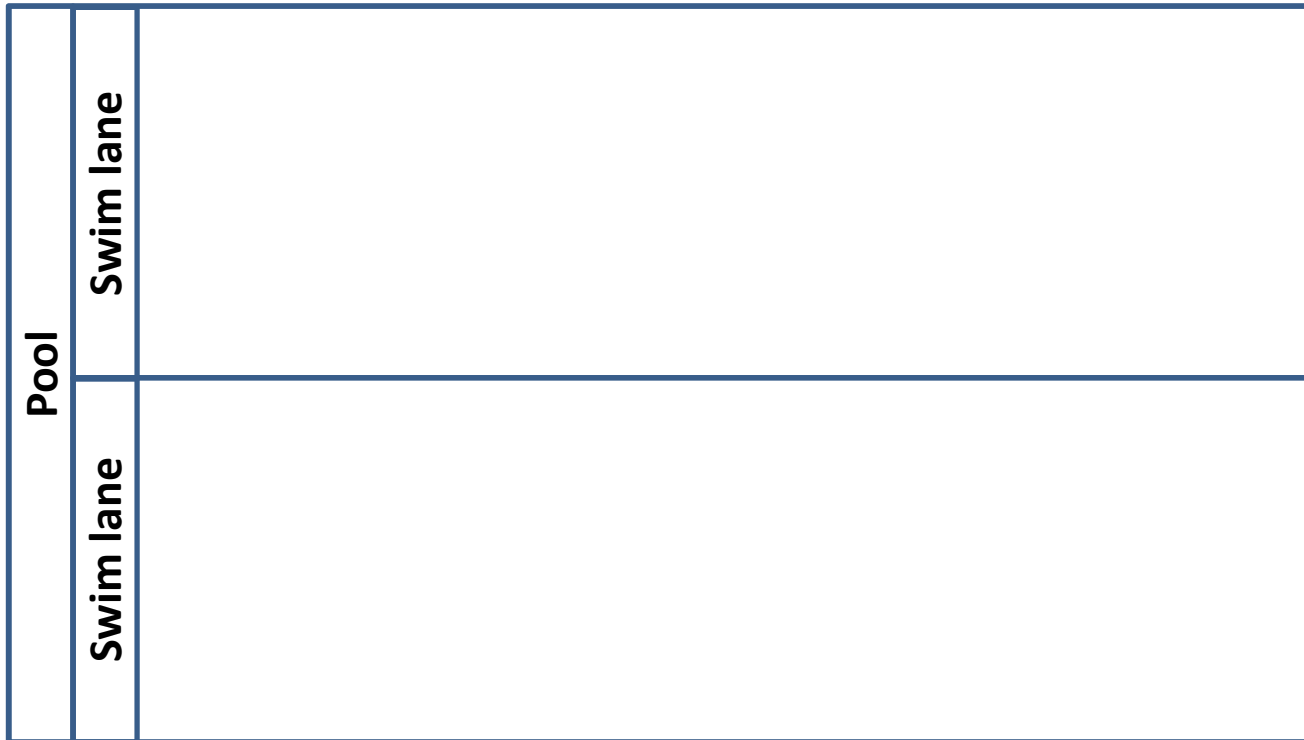
End Event



Intermediate
Message
Event

BPMN Pools and Swim lanes

- **Pool:** actor or group that carries out a process
- **Swim lane:** subdivision of a pool to model multiple actors involved in the process



Business Process Modeling Example

Admission to a graduate program requires potential students to submit an application to the program. Applications are screened by a program administrator for completeness. If the application is incomplete the administrator returns it to the applicant for correction.

Complete applications are sent to the program chair for consideration. The program chair evaluates the application and makes a decision to accept the applicant into the program or deny admission. If the application is approved the program chair sends an acceptance letter to the applicant. If the application is rejected the program chair sends a rejection letter to the applicant.

