

team could develop ratings independently; then, the ratings could be compared and discrepancies resolved in an open team discussion.

YOUR TURN

7-2 Weighted Alternative Matrix

Pretend that you have been assigned the task of selecting a CASE tool for your class to use for a semester project. Using the Web or other reference resources, select three CASE tools (e.g., Visible Analyst Workbench, Oracle Designer). Create a weighted alternative matrix that can be used to compare the three software products in the way in which a selection decision can be made. Have a classmate select the 'right' tools, according to the information in your matrix.

The final step, of course, is to decide which solution to design and implement. The approval committee should make the decision after the issues involved with the different alternatives are well understood. Remember that the line between the analysis and design is quite fuzzy. Sometimes alternatives are described and selected at the end of analysis, and sometimes this is done at the beginning of design. The bottom line is that at some point before moving into the heart of the design phase, the project team and the approval committee must understand all of the feasible ways in which the system can be created, and they must select the way that makes the most sense for the organization. The acquisition strategy selection that is made will then drive many of the remaining activities in the design phase.

Applying the Concepts at Tune Source

Jason Wells, senior systems analyst and project manager for Tune Source's Digital Music Download system, had three different approaches that he could take with the new system: he could develop the entire system, using development resources from Tune Source; he could buy a packaged software program (or a set of different packages and integrate them); or he could hire a consulting firm or service provider to create the system. Immediately, Jason ruled out the third option. Building Internet applications, especially e-commerce systems, was becoming increasingly important to the Tune Source business strategy. By outsourcing the Internet system, Tune Source would not develop Internet application development skills and business skills within the organization.

Instead, Jason decided that a custom development project using the company's standard Web development tools would be the best choice for Tune Source. In this way, the company would be developing critical technical and business skills in-house, and the project team would be able to have a high level of flexibility and control over the final product. Also, Jason wanted the new music download system to interface with the existing Internet-based CD sales system, and there was a chance that a packaged solution would not integrate as well into the Tune Source environment. Finally, Jason knew that additional features were planned for subsequent versions of this system, so he knew that having control over each version was important.

There was one part of the project that might be handled by packaged software: the purchasing portion of the application. Jason realized that a multitude of programs have been written and are available (at low prices) to handle customer transactions over the Web. These programs, called shopping-cart programs, usually allow customers to select items for an order form, input basic information, and finalize the purchase transaction. Jason believed that the project team should at least consider some of these packaged alternatives so that less time had to be spent writing a program that handled basic Web tasks and more time could

There was one part of the project that might be handled by packaged software: the purchasing portion of the application. Jason realized that a multitude of programs have been written and are available (at low prices) to handle customer transactions over the Web. These programs, called shopping-cart programs, usually allow customers to select items for an order form, input basic information, and finalize the purchase transaction. Jason believed that the project team should be devoted to innovative marketing ideas and custom interfaces with the CD sales system.

To help better understand some of the shopping cart programs that were available in the market and how their adoption could benefit the project, Jason created a weighted alternative matrix that compared three different shopping-cart programs against one another (Figure 7-7). Although all three alternatives had positive points, Jason saw alternative 2 (WebShop) as the best alternative for handling the shopping cart functionality for the new music download system. WebShop was written in Java, the tool that Tune Source selected as its standard Web development language; the expense was reasonable, with no hidden or recurring costs; and there was an in-house person who had some positive experience with the program. Jason made a note to look into acquiring WebShop as the shopping-cart program for the Digital Music Download system.

Evaluation Criteria	Relative Importance (Weight)	Alt 1: Shop with Me		Alt 2: WebShop		Alt 3: Shop-N-Go				
		Score (1-5)*	Wtd Score	Score (1-5)*	Wtd Score	Score (1-5)*	Wtd Score			
Technical issues:										
Develops desirable in-house skills	15	Developed in C. Little interest in developing C skills in-house	1	15	Developed in C and Java; would like to develop in-house Java skills	3	45	Developed in Java; would like to develop in-house Java skills	5	75
Integration with existing systems	15	Orders sent as e-mail files	3	45	Flexible export features for passing order information to other systems	4	60	Orders saved to a number of file formats	5	75
Experience with product	10	None	1	10	Tom in IS Support has had limited, but positive experience with this program.	5	50	None	1	10
Economic issues:										
Cost	25	\$150 initial charge	5	125	\$700 initial charge; no yearly fees	4	100	\$200 per year fee	3	75
Organizational issues:										
Demonstrated product in market	15	Program used by other retail music companies	5	75	Program used by other retail music companies	5	75	Brand new product; few companies have experience.	2	30

To help better understand some of the shopping cart programs that were available in the market and how their adoption could benefit the project, Jason created a weighted alternative matrix that compared three different shopping-cart programs against one another (Figure 7-7). Although all three alternatives had positive points, Jason saw alternative 2 (WebShop) as the best alternative for handling the shopping cart functionality for the new music download system. WebShop was written in Java, the tool that Tom Source selected as its standard Web development language; the expense was reasonable, with no hidden or recurring costs; and there was an in-house person who had some positive experience with the program. Jason made a note to look into acquiring WebShop as the shopping-cart program for the Digital Music Download system.

Evaluation Criteria	Relative Importance (Weight)	All 1: Shop with Me	Score (1-5)*	Wtd Score	All 2: WebShop	Score (1-5)*	Wtd Score	All 3: Shop-N-Go	Score (1-5)*	Wtd Score
Technical Issues:										
Develops desirable in-house skills	15	Developed in C; little interest in developing C skills in-house	1	15	Developed in C and Java; would like to develop in-house Java skills	3	45	Developed in Java; would like to develop in-house Java skills	5	75
Integration with existing systems	15	Orders sent as e-mail files	3	45	Flexible export features for passing order information to other systems	4	60	Orders saved in a number of file formats	5	75
Experience with product	10	None	1	10	Tom in IS Support has had limited, but positive experience with this program	5	50	None	1	10
Economic Issues:										
Cost	25	\$150 initial charge	5	125	\$700 initial charges; no yearly fees	4	100	\$200 per year fee	3	75
Organizational Issues:										
Demonstrated product in market	15	Program used by other retail music companies	5	75	Program used by other retail music companies	5	75	Brand-new product; few companies have experience.	2	30
Customizable interface	20	No	1	20	Yes, easy to do	5	100	Yes, but not easy	3	60
TOTAL	100			290			430			325

* This denotes how well the alternative meets the criteria. 1 = poor fit; 5 = perfect fit.

FIGURE 7-7