

ITC508: Object Modeling Case Study for Assessment item -2

(Text book page 221-224)

(The following transcript gives the first part of an interview that Rosanne Martel conducted with Hari Patel, the Factory Manager in charge of FoodCo's Beechfield factory. Read this through carefully and then carry out the_ (Part B) questions that follow

Rosanne Martel (RM): Hari, for the benefit of the tape, I'd be grateful if you could confirm that you're the manager responsible for all production at Beechfield.

Hari Patel (HP): Yes, that's right.

RM: Good. Now the purpose of this interview is for me to find out about operations on the production lines. Can you tell me how this is organized?

HP: Sure. How much detail do you want?

RM: Can we start with those aspects that are common to all lines? That will give me a general feel, then if there are differences we can go into more detail later.

HP: OK, there are quite a few similarities. First, there are two main grades of shop-floor staff: operatives and supervisors. Different operatives have a range of skills, of course, but that doesn't affect the way the line works.

RM: How many operatives' work on a line, and what do they actually do?

HP: There might be anything from around six operatives to over twenty, depending on the product. They really do all the actual work on the line, either by hand or operating a machine. This could be a semi-skilled labourer feeding in the different kinds of lettuce for salad packs, or a more skilled operator running one of the automatic mixing machines. In this factory, unlike Coppice and Watermead, the work is mostly quite unskilled.

RM: How many supervisors are there to each line?

HP: Just one. They are on full-time supervision duties, and they each look after one production line.

RM: Always the same line?

(Rosanne is trying to find out what possible classes there are. What else do you think her questions seek to discover?)

HP: Well, let's just say nobody has changed line in the last couple of years.

RM: How about the operatives—are they always on the same line too?

HP: No, we swap them around quite a bit. But it doesn't really matter what line an operative works on. They get paid piecework rates depending on the production run, and the rates are based on the job numbers that appear on their timesheets. There's a separate job number for each run.

RM: I'd like a copy of a timesheet please-preferably a real one with some data, if that's all right. We can blot out the name and staff number on the copy for confidentiality.

(A sensible request. Real documents with live data are an invaluable source of information. Figure B1.4 (given below) shows the timesheet that Rosanne collected.)

Weekly Timesheet

Name: ~~XXXXXXXXXX~~ W/E: 22/3/09

Factory: B Payroll number: ~~XXXXXXXXXX~~

Date	Line	Job No	Prod Hrs	Downtime	Other	Code
16/3	2	2634	8			
17	-	2671	7, 30	30		
18	-	2429	3, 00	1, 00	4, 00	S
19	-	2528	8			
20	3	3714	8			
Totals for weeks:			34, 30	1, 30	4, 00	

Office use only

Hours	Grd	Rate

Signed (supervisor): *[Signature]*
Auth (manager): *HP*
Date: 24/3/09

Note: codes = (S)ick, (H)ol, (A)bsent TS 2/97

HP: Sure. Remind me when we finish, and I'll get you one.

RM: Thanks. Now, does one line always produce the same product?

HP: No, that changes from one day to the next. The production planners produce a new schedule every Friday, and this lists all the production runs for each line for the following week

RM: I'll take a copy of a production schedule too, please. So the supervisor finds out on Friday what their line is working on over the next week?

(Here Rosanne is checking where the inputs come from, as well as what they contain.)

HP: That's right.

RM: Good, I think I've got that clear. Now let's talk about what happens when people come in to work. Do all the lines start up first thing in the morning?

HP: Usually. Production runs generally last for a whole day if possible, or sometimes a half-day. Production Planning try to keep the changeovers simple, so they tend to schedule changes during breaks to avoid wasting productive time.

RM: The lines don't keep running all the time?

HP: No, they stop for coffee and meal breaks.

RM: What role does the line supervisor play in this?

HP: Well, they make sure the lines have enough raw materials, and they deal with minor emergencies. They also monitor output, liaise with production control, keep track of employee absences, and so on.

RM: Can we go through what a supervisor does on a typical run, please, step-by-step?

(Another sensible request. Asking someone to go over things again in more detail will often reveal aspects of the situation that are not obvious from a brief description.)

HP: First, they make sure everything is ready before the run starts. They check the storage area to see there is enough of each ingredient. If a long run is planned, you don't need all the ingredients ready at the beginning, but there has to be enough to keep the line running smoothly until the next supply drop. They also have to check if the staff allocated to that run have turned up. A line can usually run for a little while with one or two staff missing, but it's best to have everyone there from the start.

RM: How does a supervisor know what ingredients are required, and how many staff?

(A good analyst always probes to find out how, what, why, when, where and who.)

HP: Every run has a job card, with this information on it. The warehouse gets a copy of the job card too, so in theory they know what supplies to deliver, to which line and when they will be needed.

RM: Does that usually work?

HP: (Laughs) Sometimes!

RM: What if there aren't enough staff?

HP: Sometimes the supervisor can find a spare body on another line. Or they can run the line slower. You can manage with fewer staff if necessary, but productivity is a lot lower.

RM: Let's say the ingredients are all ready, and all the staff are there waiting to go. What next?

HP: The supervisor switches on the line, and then it's mostly troubleshooting and paperwork.

RM: What does the paperwork involve?

HP: Well, they start by taking the names of all the staff at the start of the run. They copy the job number from the job card to the production record sheet and all the timesheets. If it is the first time that operative has worked that week, then the supervisor makes out a new timesheet. When they start the line, they note the time on the production record sheet. Then they keep a rough note of anyone who leaves the line during a run, and how long they're absent.

RM: What kind of problems does the supervisor deal with?

HP: The main problem is if something goes wrong with the run. Say the line breaks down. They would have to call in maintenance, record the downtime while the line's not running, and try to find useful things for the staff to do while they're waiting for it to be repaired. If an ingredient runs out this could also halt the line, and might mean chasing the warehouse, or contacting the farm or an outside supplier. Sometimes people go missing, or leave early because they're sick. The supervisor has to find a replacement as quickly as possible.

RM: Right, now let's go *to the* end of a run. What information is formally recorded, and by whom?

HP: First the supervisor notes the finish time on the production record sheet.

RM: I'll have one of those too, please.

HP: OK, no problem.

(Following figure shows a blank production record sheet.)

Daily Production Record Sheet No: _____	
Line:	Supervisor: Date:
Product:	Job No: Circle Day: M T W T F S S
Run Start:	Run Finish:
Problem Report When & where problem occurred:	
Brief Description:	
Fault Log No: Downtime (H/m): (Only if applicable)	
Signed: (Supervisor)	<div style="text-align: right; font-size: small; margin-bottom: 5px;">Production Control use only</div> Total Qty Produced: Checked by: <div style="text-align: right; font-size: x-small;">PR5/1.3</div>

HP: Next the supervisor phones for someone to come over from Production Control to verify the quantity produced and note this on the production record sheet. Then the supervisor totals all the absences, because if anyone has more than 15 minutes' absence, it's deducted from their total unless they have a good reason, say a medical certificate. Then they work out the total hours for each operative. If someone joined the line in mid-session they might not have a timesheet, so one is made out now and their hours are added in. By the time all that has been done, Production Control has usually checked out the total quantity produced, and this goes on the production record sheet. After that, it's just returning unused ingredients to the warehouse, tidying up the line ready for the next run, that kind of thing.

RM: Thanks, that was really helpful. Now I'd like to ask about how the piecework formula works. Can you tell me what the calculation is?

HP: To be honest, I can never remember the exact formula. You'd do better asking a supervisor or someone from payroll ...