Management Accounting
Prof. Anil K. Sharma
Department of Management Studies
Indian Institute of Technology, Roorkee
Lecture 16
Cash Budget-1

Welcome students, so we are in the process of learning about the budget and the budgetary exercise and using the budget as a say important instrument in management decision making, in the say overall operating and financial planning and exercising the operating in financial control, right. So, in the previous class we learned about that how to (means) start preparing the budgets. I told you in the previous class that the final end of the operating budget is preparing the budgeted profit and loss account or the budgeted income statement and the end of the financial budget is preparing the budgeted balance sheet, right.

But before arriving at the budgeted profit and loss account and the budgeted balance sheet, we have to prepare number of schedules and those schedules will help us to take the information finally to the profit and loss account and to the balance sheet. Third statement which is the cash budget is also considered as sometime the schedule that cash budget information also is finally taken to the balance sheet because finally the cash has to be shown as an asset in the balance sheet. So we have to finally prepare the operating budget and the end of the operating budget will be the profit and loss account, budgeted profit and loss account and end of the financial budget will be the budgeted balance sheet.

Now in the previous class we learned about the first two schedules that how to prepare the first two schedules because beginning of any budget is always with the say forecasting of sales, means activity, what is the level of activity we are going to do. If it is a manufacturing organization, if it is a service rendering organization, any business organization, means their end point is, what is end result? The amount of the sales they want to achieve, how much they are going to say sell in the market. How much they are going to (say) sell in the market. How much they are planned to sell in the market? And if you know that, this much is going to be our sales target, this is going to be the final performance in the market.

Because that is the end result, whatever you manufacture, if you are able to sell that in the market we are a successful organization. So how much in the coming budget horizon or that budget period, maybe it is for a month, maybe for quarter for 6 months or say for your 1 year or even more than that, depending upon the type of budget. How much we are going to sell in the market. So we learned about that we have to begin all kind of the budgetary exercise with the preparing of the sales schedule that how much we are going to sell and in that sale schedule also we have to anticipate, we have to forecast, that out of the total sales we are going to achieve, how much sales are going to be on cash? And how much sales are going to be on credit? Right.

So given the information the information in the case, we have found that we are preparing the budget for only 1 quarter that is 3 months June, July and August. So we found out that if you talk about total sales, in the total sales only 10 percent of sales are the cash sales and remaining sales are the credit sales. So we have forecasted that, that over the 3 months period of time, we are going to sell for 1.5 million dollars or maybe the 15 lakh worth of the dollars in the market and if we divide that over the 3 months so the sales are expected to be say worth 700 thousands dollars in the month of June and worth 400 thousand dollars in the month of July and worth 400 thousand dollars in the month of August and then we learned about the next schedule and that next schedule was that how that?

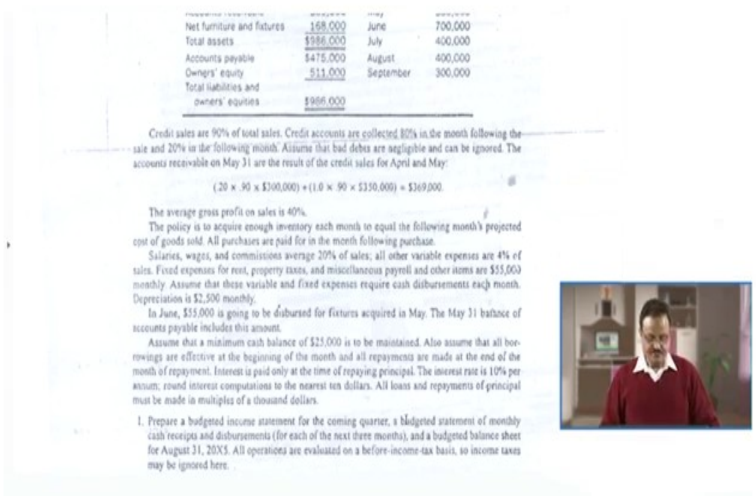
Means 10 percent is collected at the time of selling in the market. So it means that is cash sales but remaining 90 percent how we are going to collect? So we had means prepared a schedule and we learned about that the cash collection bill be ranging from 376 thousand in the month of June to (6000) 6,07,000 in the month of July and then we talk about that 454 thousand in the month of August right, so this are going to sales collection.

Now we go to the next schedule and the next schedule is preparing the purchase budget. Because if you are going to sell in the market before that we are going to manufacture and if you are going to manufacture something we are going to incur some expenses and if it is a manufacturing organization in that case, the larger amount of expenses is on the two broad heads, one is the material expenses and second are the operating expenses, which we are going to incur.

So we have to prepare the two schedules, one is the purchase schedule, that is a purchase of raw material, next will be the schedule for the payment for purchases and third schedule will be with regard to the manufacturing process for the operating expenses. So we have to look at the case that what is the information given with regard to the purchases.

If you read the case carefully it is clearly given to us that average gross profit on the sales is 40 percent, average gross profit on the sales is 40 percent, what does it mean? It means cost of goods sold is 60 percent, COGS is 60 percent. Now what includes COGS? In that 60 percent you have to include two broad things, one is the material expenses, raw material expenses and second are the operating expenses.

(Refer Slide Time: 05:51)



Net furniture and fixtures	168,000	June	700,000
Total assets	$986,000	July	400,000
Accounts payable	$475,000	August	400,000
Owners' equity	511,000	September	300,000
Total liabilities and owners' equities	$986,000		

Credit sales are 90% of total sales. Credit accounts are collected 80% in the month following the sale and 20% in the following month. Assume that bad debts are negligible and can be ignored. The accounts receivable on May 31 are the result of the credit sales for April and May:

$$(.20 \times .90 \times \$300,000) + (1.0 \times .90 \times \$350,000) = \$369,000$$

The average gross profit on sales is 40%.

The policy is to acquire enough inventory each month to equal the following month's projected cost of goods sold. All purchases are paid for in the month following purchase.

Salaries, wages, and commissions average 20% of sales; all other variable expenses are 4% of sales. Fixed expenses for rent, property taxes, and miscellaneous payroll and other items are $55,000 monthly. Assume that these variable and fixed expenses require cash disbursements each month. Depreciation is $2,500 monthly.

In June, $55,000 is going to be disbursed for fixtures acquired in May. The May 31 balance of accounts payable includes this amount.

Assume that a minimum cash balance of $25,000 is to be maintained. Also assume that all borrowings are effective at the beginning of the month and all repayments are made at the end of the month of repayment. Interest is paid only at the time of repaying principal. The interest rate is 10% per annum; round interest computations to the nearest ten dollars. All loans and repayments of principal must be made in multiples of a thousand dollars.

1. Prepare a budgeted income statement for the coming quarter, a budgeted statement of monthly cash receipts and disbursements (for each of the next three months), and a budgeted balance sheet for August 31, 20X5. All operations are evaluated on a before-income-tax basis, so income taxes may be ignored here.

But in this case operating expenses information is given to us separately very clearly; these expenses are given to us like that salaries, wages and commission, average 20 percent of sales. All other variable expenses are 4 percent of sales, it means if these expenses are separately given to us making all the operating expenses, it means this 60 percent of the cost of the good sold we have to assume as only the cost of raw material, as the cost of raw material.

So it will be the total cost 60 percent will be the cost of raw material plus other operating expenses that is salaries, wages, commission and other variable expenses. So this total will become the total cost of good sold. So you have not to get confused that 40 percent is the GP, it means 60 percent is the cost of good sold and 60 percent includes the material as well as the other expenses, no.

Other expenses are separately given to us that is about 24 percent of sales, so it means only this 60 percent which is the remaining amount is the cost of material. So we have to assume that this is the cost of material and this is the cost of in a way purchases which we are going to make. So it means 60 percent, now what is clearly written? You read that again, what is written here, the policy is to acquire enough inventories each month to equal the following month projected cost of goods sold, right.

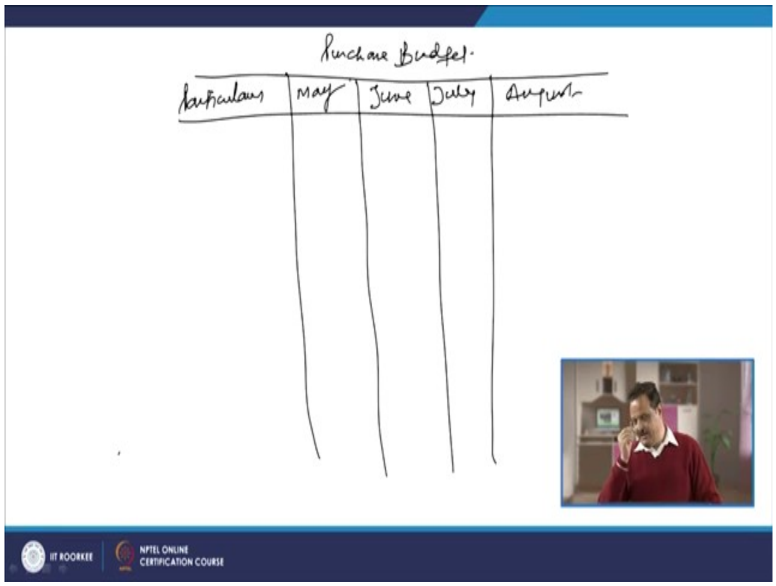
The policy is to acquire enough inventory each month to equal the following months projected cost of goods sold or purchases are paid for in the month following the month of purchases, all purchases are paid for in the month following the month of purchases. It means whatever the purchases we are making in the month of June, will make the payment for that in the month of July and whatever we are purchasing means the raw material, we are purchasing in month of July, the payment for that will be made in August.

It means this firm is getting a credit period of 1 month or 30 days from the suppliers (so) it means they have not to worry about in the month of purchase for the payment of raw material or the payment for the purchase of raw material. They can buy the raw material, their manufacturing process will start and after 1 month they have to bother about that how much we purchased in the previous moth, we have to pay in the current month and in that regard what we have to do is, we have to find out that what we purchased in the previous month, we have to pay for that in the current month that is 100 percent, right.

So now in this case, because we are preparing the budget for 1 quarter June, July and August, it means in the month of June which we are going to pay for the purchases of material that material was acquired in the month of May, clear, that material was acquired in the month of May. So May we acquired the material and we are going to pay that in the month of June, June we acquire the material, we are going to pay for that in the month of July and July we acquire the material we are going to pay for that in the month of August. So while preparing the purchase schedule you have to count for the, you have to show that information in that schedule with regard to the purchases for the month of May also.

Because otherwise you won’t be able to know that how much is going to the cash outflow on account of the purchases of a raw material in the month of June, clear. So we have to prepare this schedule now and that is the purchase budget or the purchase schedule and while preparing this purchase schedule or purchase budget, will have to take into account the information for how many months? 4 months, we have to take that information to account is that the information for the 4 months, so it means when you take this 4 months information into account, what we are going to do here? We are first is, we are going to prepare the purchase budget.

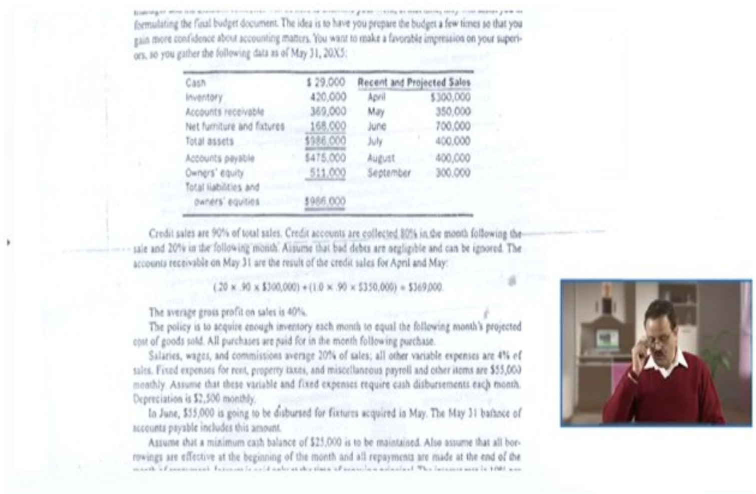
(Refer Slide Time: 09:37)



Purchase budget, this is the purchase budge. In this purchase budget what we are going to do is, we are going to take here that is the first column is for particulars, this is for the months that is May, June, July and the remaining is the August. So we will have to write here particulars, right and we have to write here May, this is June, this is July and this is August, this is the information for August we have to take this information for the August. So it means this may information for the August we are going to take, so it means we are going to take this information for how many months? We are going to take this information for the 4 months.

You should not get confused that when we are preparing a budget for 3 months, why in this schedule we are taking the information for the 4 months? Because the condition is payment will be made for the purchases in the current month we are going to make the payment in the next month. So we have to put here, we are going to prepare this schedule as a payment for purchases; this is simply the schedule for purchases of raw materials. So we have to find out because in the month of June when you will prepare the next schedule you will have to find out that how much payment we have to make in the month of June with regard to the material that you will come to know only from the purchase schedule that how much we have purchased in the month of May, that is why we are taking here the 4 months whereas in the next schedule that is the purchase disbursement budget will take only 3 months not the 4 months. So we are putting here that information. Now, what is a condition? How much purchases we are going to do?

(Refer Slide Time: 11:14)



formulating the final budget document. The idea is to have you prepare the budget a few times so that you gain more confidence about accounting matters. You want to make a favorable impression on your superiors, so you gather the following data as of May 31, 20X5:

		Recent and Projected Sales	
Cash	$ 29,000		
Inventory	420,000	April	$300,000
Accounts receivable	369,000	May	350,000
Net furniture and fixtures	168,000	June	700,000
Total assets	$986,000	July	400,000
Accounts payable	$475,000	August	400,000
Owners' equity	511,000	September	300,000
Total liabilities and owners' equities	$986,000		

Credit sales are 90% of total sales. Credit accounts are collected 80% in the month following the sale and 20% in the following month. Assume that bad debts are negligible and can be ignored. The accounts receivable on May 31 are the result of the credit sales for April and May:

$$(.20 \times .90 \times \$300,000) + (1.0 \times .90 \times \$350,000) = \$369,000.$$

The average gross profit on sales is 40%.

The policy is to acquire enough inventory each month to equal the following month's projected cost of goods sold. All purchases are paid for in the month following purchase.

Salaries, wages, and commissions average 20% of sales; all other variable expenses are 4% of sales. Fixed expenses for rent, property taxes, and miscellaneous payroll and other items are $55,000 monthly. Assume that these variable and fixed expenses require cash disbursements each month. Depreciation is $2,500 monthly.

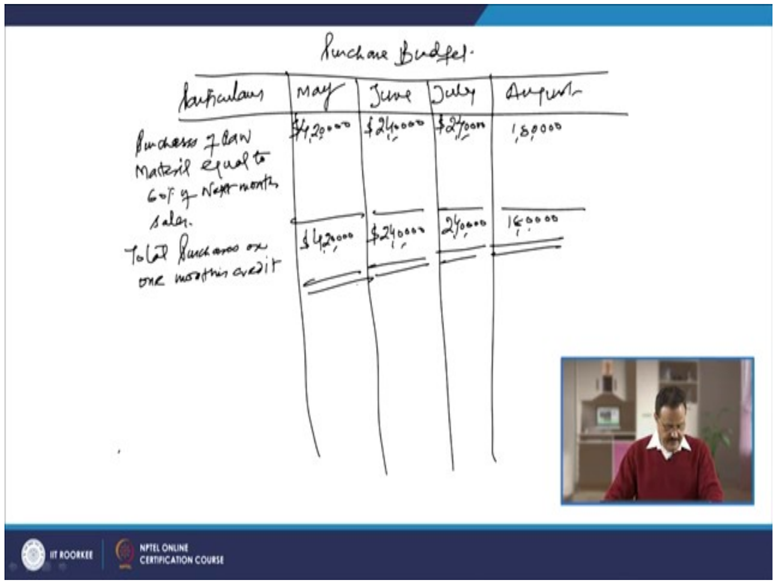
In June, $55,000 is going to be disbursed for fixtures acquired in May. The May 31 balance of accounts payable includes this amount.

Assume that a minimum cash balance of $25,000 is to be maintained. Also assume that all borrowings are effective at the beginning of the month and all repayments are made at the end of the

Means, what is written here in the case? It is written in the case is that the policy is to acquire enough inventory each month to equal the following month projected cost of good sold. The following months projected cost of goods sold so it means what is the following month projected goods sold? How we are going to sell in the month of June? You are given clearly the projected sales information here that is 700 thousand dollars; our sales amount is going to be 7 lakh dollars in the month of June.

So it means what is the COGS? 60 percent because 40 percent is the gross profit. So material cost will be 60 percent which we will be purchasing in the month of May but that 60 percent will be of the sales we are going to do in the month of June. So how much is going to be sold in the month of June? 700 thousands and what is the 60 percent of that? 60 percent of that is going to be say 420 thousand. So what we are going to write here?

(Refer Slide Time: 12:08)



Purchase, purchase is of raw material equal to 60 percent of next month sales. So what are the next month sales? 700 thousands and what is the 60 percent? That is going to be 420 thousand dollars, so this is the purchases of raw material equal to 60 percent of next month purchase.

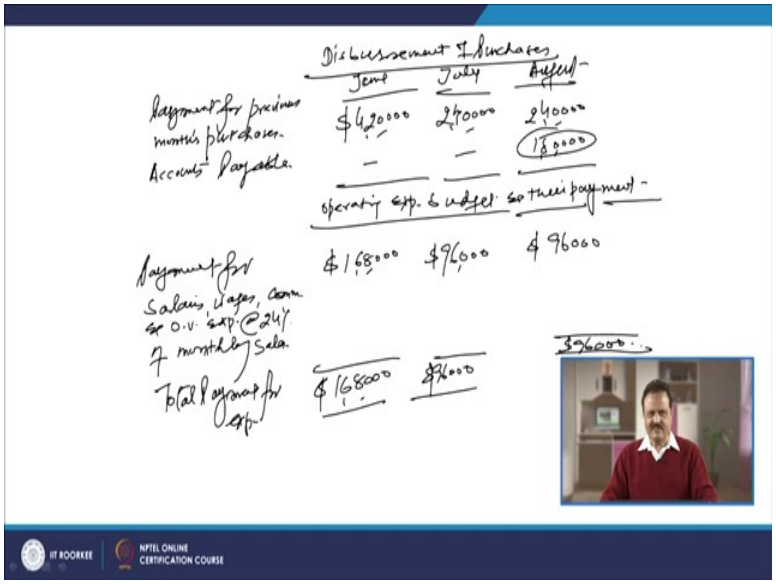
So this is 420 thousand dollars so it means this amount we are going to purchase for the month of, in the month of May and that amount we will using so I am putting here this sign of the dollars so 420 thousands. Similarly purchases are going to be in the month of June depending upon the sales how much sales we are going to make in the month of June? In the month of June we are going to make the sales is say, sorry June we have taken 7 lakhs but in the month of July how much we are going to sell? We are going to sell that is a 400 thousands. So 400 thousands for that will have to purchase the raw material in the month of June and how much that is going to be?

That is going to be that is dollar, 60 percent is going to be how much? 240 thousands? Yes, 240 thousand dollars and in the month of July again we are going to purchase equal to the 60 percent of the next month sales and how much we are going to sell in August? The sales in the month of August is going to be that is say 240 thousand dollars means the total sales are going to be 4 lakhs so our 60 percent is going to be 240 thousand dollars purchases and in the month of August how much we are going to purchase? In the month of August how much we are going to purchase? We are going to purchase in the month of August equal to the 60 percent of September months sales and September sales are how much?

Say 3 lakh dollars, 3 lakh dollars it means 60 percent of that is going to be 180 thousand dollars, 180 thousand dollars so this is going to be the total purchases. We do not have any other information so it means you can write here like this. In this information total purchases on 1 months credit, total purchases on 1 months credit are going to how much? Dollar 420 thousands that is in the month of May then it is dollar 240 thousands that is in the month of June, 240 thousands in the month of July and 180 thousands in the months of August, right. So this schedule is over, this schedule is over.

Now we had already prepared the schedule and this schedule is over with us so we have not too means worry about anything. We know that how much we are going to purchase over these different months, it is clear now. So our purchases are ready with us, 420 thousand worth of the dollars we are going to purchase in May, June is 240 thousand dollars, July purchases will be 240 thousand dollars and August will be 180 thousand dollars which is going to be 60 percent of the total sales we are going to make in the month of September but purchases will be in the month of August and that is 180 thousand worth of dollars, right. So this schedule is ready with us which are called as the purchase budget or purchase budget schedule right.

(Refer Slide Time: 16:01)



Now we will go for the next schedule and that is the schedule is disbursement of purchases, disbursement of purchases we are going to pay for the purchases which we have made here so this is the disbursement of purchases schedule. So how we are going to disburse that? Now we do not have to put the month of May here because we are preparing the budget for June but form the schedule of purchases we know how much we are going to pay in the month of June for the purchase we made in the month of May, right.

So we have to find out the cash outflow on account of the purchase of materials. So again we are, I am not writing it again but the column is same particulars and the months. So then we are writing the say particulars here so first we will write here is payment for previous month's purchases, payment for previous month's purchases and what we are putting here? Just for a reference I am putting here June then I am putting here July and then I am putting here August. So we are going to make the payments. So payment for previous months purchases, how much payment we are going to make for the previous months purchases? That, in the month of May we purchased equal to the 60 percent of the Junes sales, so in June we are going to pay for the purchases made in July sorry May, so how much payment we are going to make that? That is 420 thousand dollars.

This information is come to us from the previous schedule, second is going to how much? In the month of July we are going to pay for the purchases which we made in the month of June and in this August we are going to pay this is 240 thousand rupees which we purchased in the month of July right. Now, question arises, when we are going to pay for the purchases which we made in the month of August? For the sales to be made in the month of September, that amount we are not going to pay now, only cash outflow is how much? 420 thousand dollars on account of purchase raw materials, in the month of June 240 thousand dollars on account of purchase of material, in the month of July and August 240 thousand dollars in the month of August, right.

Now what about the purchases which we made in the month of August? Which we have to have, so this amount will be shown as accounts payable, this amount has to be shown as accounts payable and this amount is how much? Nothing is accounts payable, nothing is left to be paid in June, and nothing is left to be paid in July. So in the month of August you will be showing that is the 180 thousand dollars this is going to be the accounts payable. This account is going to be, this is still due so now where will this amount will go? This information which is payments made 420 thousands, 240, 240 this will go to the cash budget because this will cause the cash outflow and that we have to show in the cash budget.

But this 180 thousand rupees, no cash outflow is going to take place so this 180 thousand rupees will be straight way going from this place to the balance sheet and we will show it as a liability till we make the payment maybe that is in the budget we are going to prepare for the next part. So it will be shown (means) we have the two information, one is the disbursement which we made over the different 3 months that will go to the cash budget and the second information which is accounts payable, now we have not paid any, made any payment on account of this amount, this amount is not going to be put anywhere in the cash budget because there is no cash outflow.

So this information straight way will go to the balance sheet because still it is a liability on the firm in this quarter, till the end of this quarter till the month of August it is going to be a liability on the firm and we have to show this liability in the quarterly balance sheet which we are preparing for this quarter that is the budgeted quarterly balance sheet, clear. So it means purchase schedule is ready with us and we have known how much is going to be cash outflow? How much is going to be the liability and this information is available with us.

Now the next is the operating expenses budget and their payments. Operating expenses, operating expenses budget and their payment. Now again we are going to take this as June, July, August and the operating expenses are going to how much? We are given under to heads that is right, we are given under two heads that is the salaries, wages, commission. Let us go back to the case, how much is written here? It is clearly given to us is that salaries, wages and commission average 20 percent of sales, all other variable expenses are 4 percent of sales, right. Fix expenses for the rent, property taxes and miscellaneous payrolls and other items are 55 thousand dollars monthly.

So it means its only one item, when there is only one item it's for example fix expenses, only one item statement is given to us, per month its payment is 55 thousand dollars so no need to prepare the schedule for that. Straight way this information from the case can got to the, the where it has to go to lastly it has go to the cash budget as well as the profit and loss account. So for the operating expenses, either you can bifurcate into two parts, first is 20 percent and then 4 percent or you can say that finally we are going to pay equal to 24 percent of sales, that is on account of salaries, wages and commission and other variable expenses.

So take it together 24 percent and put this item by calculating 24 percent of the salaries, wages and commission and put under the one item only so that we have not to (means) create the information which is unnecessarily created and not required. So what is the particulars here? Payment for salaries, wages, commission and other variable expenses. How much is that in the month of June we are going to pay? How much that amount work out as? If you calculate that amount of the sales we are going to talk about, so it is going to be, if you calculate 20 percent of how much? 20 percent of 7 lakhs, sales are 7 lakhs in the month of June, 20 percent of that first is going to be how much?

That is going to be somewhere say 140 thousands and how much is going to be 4 percent? That is 28 thousand. So in total means you can is salaries, wages and commission and other variable expenses at the rate of 24 percent of monthly sales. So our sales are (700 and) 700 thousands, so how much expenses are going to be? Dollar 168 thousands, 168 thousands here how much it is going to be? This expenses are going to be how much? 4 lakh sales, so it is going to be 94 thousand dollars and here it is going to be again say 90 sorry not 94, 96 thousand dollars and it is again here 96 thousand dollars.

No other expenses, so total payment for expenses is going to be, total payment for expenses is going to be how much? Again dollar 168 thousand, it is 96 thousands and it is again 96 thousand dollars (sorry) this is going to be our cash outflow on account of your operating expenses.

So your cost of goods sold becomes sum total of material expenses which are 60 percent of the maximum sales so that cash outflow will take place in that month and second is the second part is a operating expenses which are partly variable, partly fixed so variable expenses which are on account of the salaries, wages and commission and other variable expenses that are put together in the schedule and we know that this payment is going to be 168 thousands, 96 thousands and 96 thousands fine.

Remaining are the fixed expenses, only one item 55,000 per month no need to prepare the schedule straight way that information can go from this case to the say this is your cash budget and the profit and loss account, budgeted profit and loss account or the budgeted income statement. So looking at this information and looking at the background work required to be done before preparing the profit and loss account, cash flow statement or the cash budget and the budgeted balance sheet, we had to prepare some of the schedules and now these are the only schedules required.

First we require the sales schedule, (sales payment), sales collection schedule, purchase schedule, payment for purchase schedule the operating expenses so it means now we are clear that if you are going to sell a particular amount of sales in one month, how much we are going to produce for that? How much are going to a material expenses? How much are going to be the operating expenses? So all your input and output schedules are ready with you. Now these schedules or the information from this schedules can be straight way taken to the third important say schedule you would call it as, so sometime we call it as a budget because it is a part of the financial budget.

So before preparing the budgeted balance sheet and the profit and loss account we will prepare the budgeted cash flow statement and means that information we require so that we can find out that how much amount is required and how much amount we are going to make the payment for. So it means we are going to show this information at the different places and for the on the different accounts. So it means in this case if you talk about, so the total income and expenses will be shown in the profit and loss account and then will have to prepare the cash budget and then the budgeted balance sheet.

So now before we go for preparing the financial budget because they are the two components of the financial budget, one component is the cash budget and second component is the budgeted balance sheet so I think it is better for us to learn that we have (purchased) prepared the operating budget schedules. So first we will learn about preparing the profit and loss account and that is because that is end of the operating budget, that is the budgeted profit and loss account and then we will learn about preparing the budgeted cash flow statement or the cash budget and then the budgeted balance sheet. Thank you very much.