

MA 3DCA Production Management:

Code: **M7X00661**

Assignment 2 Guide:

(Revised 08-05-2017)

This is a guide to the work flow necessary to achieve Assignment 2 of the Production Management module.

If you are struggling with this assignment and wondering where to make a start, then this example work flow will help you progress through the logical steps needed to complete it. Although the workflow is defined, you will still need to make carefully considered decisions and use your creativity to complete the tasks.

What you have to do.

In this assignment you are taking on the role of the production manager and your role is to communicate through letters or emails the following information:-

To the Clients:

A complete schedule, preferably in visual form.

A complete listing of how much you are charging the clients to complete this project.

A complete list of dates when you would like the clients to visit, to give there approval at certain stages of the production.

To the Crew Members:

A complete list of dates of when you would like them to work, what you want them to do and how much you will be paying them.

Look at the following picture which illustrates the basic work flow.

The Work Flow

Assignment 2

is a brief including the scope of the project and all the information you need to make a schedule, a budget and the letters (or emails).

1. Read the Assignment Brief carefully.

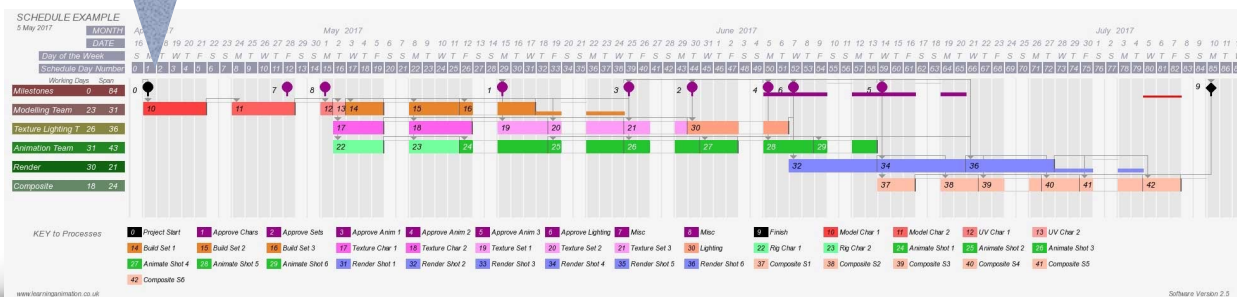
Make notes if necessary.

2. Prepare a Schedule.

You could use the online scheduler provided

3. Prepare a Detailed Budget.

You could use the online scheduler provided



4. Prepare your Letters

Use the Report to help with these



Letter to Clients

Dear Mandy and Marcus,

Schedule
Budget
Approval Dates

Letter to Crew

Dear Sarah,

Her Working
Dates
Her payment
details

Letter to Crew

Dear Peter,

His Working
Dates
His payment
details

Letter to Crew

Dear Matthew,

His Working
Dates
His payment
details

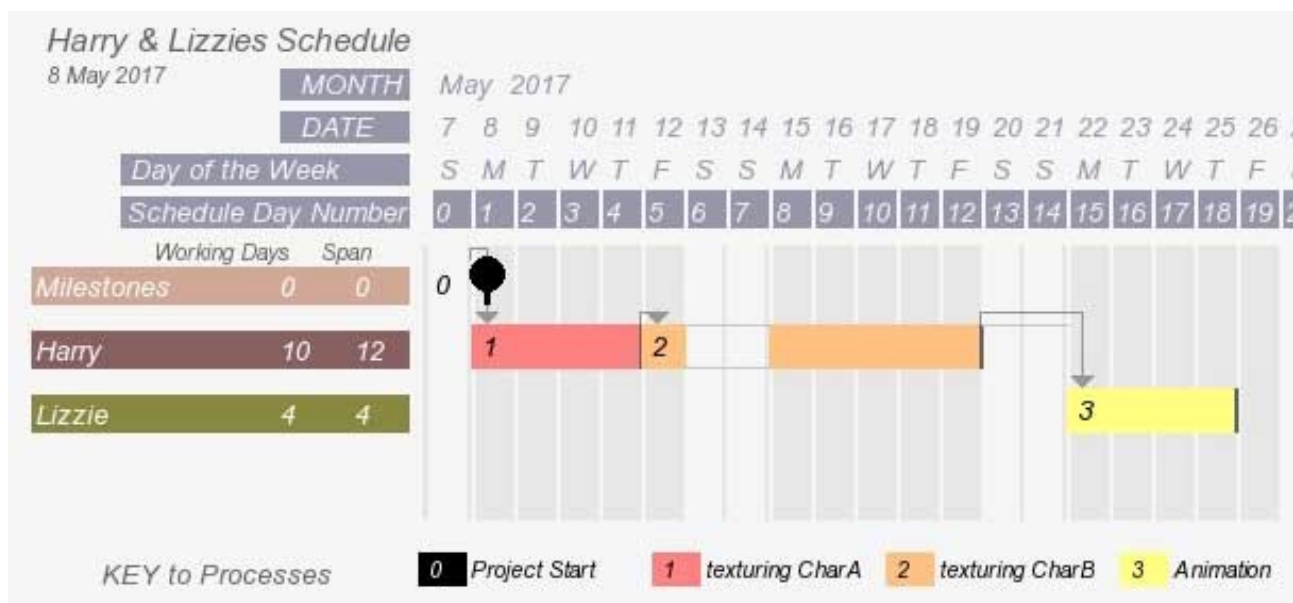
You will need to devise a Schedule.

You will not be able to calculate any of the information or data needed for the above until you have built the complete schedule first. There are various ways of building a schedule but the easiest and most reliable way is to use a scheduling package where you can lay out the order of the production processes to form a Gantt chart. You could do it by cutting out strips of coloured paper to represent the processes and then to arrange them in order of execution but the easiest way is to use the online software, designed and provided specially for your use, on the Learning Animation Website. Use this link to start making your Gantt chart schedule.

http://www.learninganimation.co.uk/production_manage/

The Gantt Chart Overview.

If you find using the online software too difficult, you can sketch out a rough draft on paper and then do a neater version when you have worked out the position and duration of the processes. The basic requirement of the chart is to show the processes, connected in order of execution, running in time order, from left to right. Most processes are activities which have a duration and are represented by its length along the time line. The vertical position of a process is dependant usually, on who is responsible for doing it. The example below shows that Harry is responsible for two processes, texturing CharA over 4 days, then, when he has finished, texturing CharB over the next 6 days. When he has finished then Lizzie can carry on with some Animation.



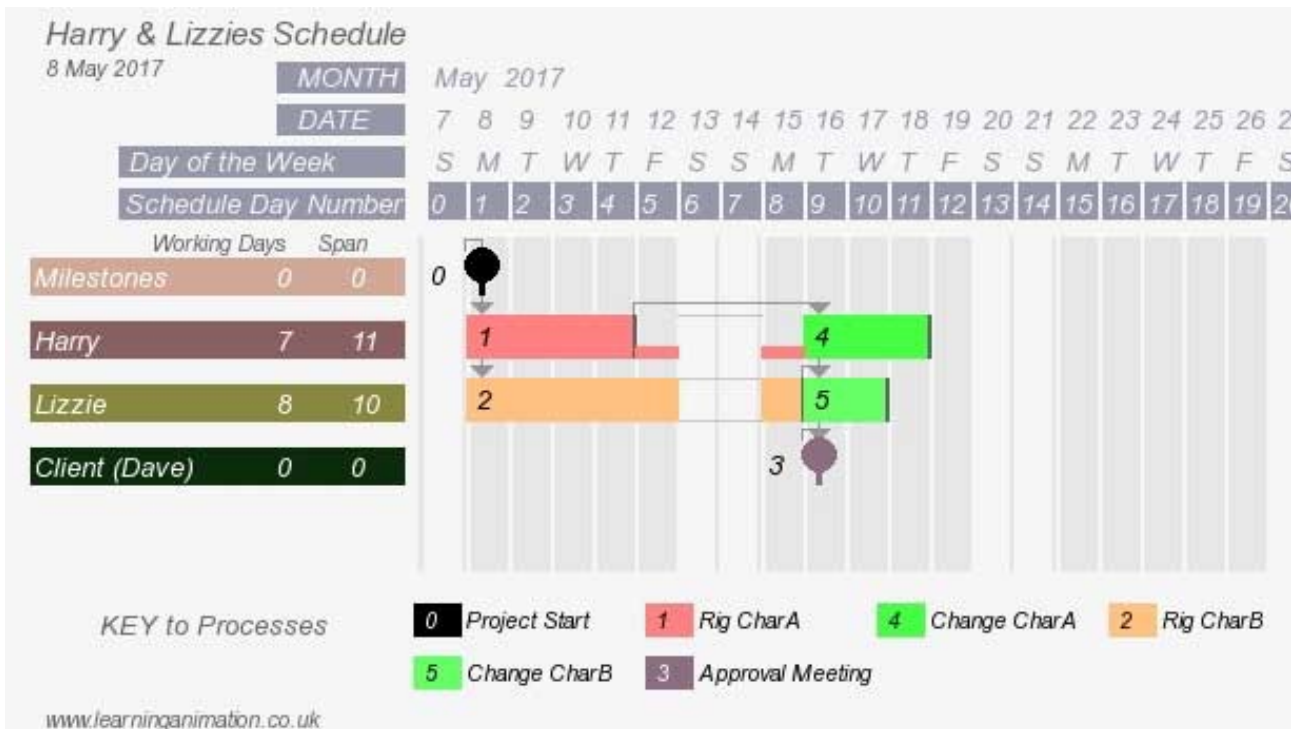
Harry & Lizzies Schedule:

Process 1 "texturing Char A" has a single Predecessor "Project Start".

Process 2 "texturing Char B" has a single Predecessor "texturing Char A".

Process 3 "Animation" has a single Predecessor "texturing Char B".

Some processes do not have a duration and these are classed as events. An approval meeting with a client is an event. Although events don't have a duration, other processes that come after are usually dependant on them. The example below shows that Harry and Lizzie have an approval meeting with client David and that no further work can be carried out until David gives approval at this stage over Harry and Lizzie previous tasks. These are Rig CharA and Rig CharB respectively. Once the approval event has taken place, Harry and Lizzie can carry on with their next tasks which are Change CharA and Change CharB respectively,



Harry , Lizzie's & Client Dave's Schedule:

Process 1 "Rig Char A" has a single Predecessor "Project Start".

Process 2 "Rig Char B" has a single Predecessor "Project Start".

Process 3 "Approval Meeting" has two Predecessors "Rig Char A" & "Rig Char B"

Process 4 "Change Char A" has a single Predecessor "Approval Meeting".

Process 5 "Change Char B" has a single Predecessor "Approval Meeting".

The start of the entire schedule should be an event on which every other process is dependant so that if it is moved at anytime, then the rest of the processes automatically move within. A deadline can also be an event which is dependant on every other process finishing.

Building your chart on-line in logical steps.

Start by clicking on the Build Chart button and this will produce a default Gantt chart. You will be edited this so that it represents the production specified in the assignment.

Click on the Schedule Settings Icon. From this new window, increase the Number of Processes from 3 to 34. You will need more processes later but 34 will do for the time being. Change the "Chart Title" to a more suitable name. Set the Chart Start Date to the 26th June 2017 by first setting the year first to 2017 then set the week number to 26, which should yield the correct start date. If it doesn't, then keep entering the year and different week numbers until the right Chart Start Date appears.

Return to the chart by clicking on the Update Chart icon.

Your chart now should look very tall and your next job is to edit all 34 processes but first you should save the changes you have made.

Save your Gantt Chart.

Click on the Display Elements icon. From this new window change the render mode to Export Data v3.0. Click on Update Chart icon. Highlight all the text in the Data Field, copy and paste it into Wordpad or simple text editor for later use if the chart maker crashes.

To return to the chart, click on Display Elements icon and change the Render Mode back to Render Chart then click on the Update Chart Icon.

Making a Deadline.

Make the first process (process 1) a deadline, this will be used later to define when the project has to end. To do this, click on the process 1 strip. This will take you to the Edit window. Here you can edit the properties of the processes.

Change the Process Type to Deadline, change the Label to "Final Delivery", change the colour to black, set the Start Day to 64. This will be the only process in which you set the Start Date, all other processes will rely on the processes that become before (the predecessors) to position them along the time line. Don't change any other property of the Final Delivery event for the moment. We will change it later. Click on the Update Chart button or the Process Icon to return to the chart.

Setting the initial properties of the other processes.

Set the duration, label and colour of all the other 33 processes. Click on each process strip in turn to edit the properties. When you finished editing then return to the chart by clicking the Update Chart button or the Process Icon.

You can get the Label name from the "The Scope" table (under Task) in the assignment brief along with the duration (under Days). Choose a colour which is consistent with other processes of a similar type. An example might be that all animation could be green and all rendering could be red. Using the Last Colour button will help with this consistency as you can use this to select the colour used on the previous process. Don't change any other properties other than duration, label and colour for the moment. We will change other properties later.

Within the 33 processes, I have allowed for 3 lighting sessions instead of just one. Don't forget to save your data as described previously.

Setting the crew and client names.

From the chart, click on the Group Management icon.

In the group Management window, change the name of group 2 from "Crew Mmbr" to "Matthew", the name of group 3 to "Sarah" and the name of group 4 to "Peter". While your working in this window you might as well enter the name of the clients and a group called Render. Enter "Marcus" into group 5, "Mandy" in Group 6 and "Render" into Group 7.

Click on the Update Chart icon to return to the chart.

Adding approval meetings and modification periods.

Before we link the processes together along the time line we need to add additional processes for approval meetings with the clients and additional ones for any modifications or changes necessary where the client may request changes.

We know from the assignment that Marcus has to approve 2 characters and 3 environments. For now we will need to make two events to accommodate this.

Mandy has to approve the animation of 7 shots. For now we will need at least 2 events to accommodate this.

We need to allow periods of modification after the approval meetings so an allowance of an additional 8 processes should be enough.

Add 12 processes by clicking on the Schedule Settings icon and change the Number of Processes from 34 to 46 and then return to the chart by clicking on the Update Chart Icon.

Edit the new processes.

Processes 34 to 37 Process Type should be changed to Event, The Labels changed to "Approval 1", "Approval 2", "Approval 3" and "Approval 4" respectively. Change the colour to black or colour of your choice.

Processes 38 to 46 should be left as activities and the labels changed to "Changes 1", "Changes 2", "Changes 3", through to "Changes 8". Modify the Duration of all 8, to 1 day and change the colour of all 8 to a colour of your choice. Don't forget to save your data as described previously.

Connecting each process together and allocating them to a group.

The next stage has to be done very carefully. The positions of the processes along the time line, (horizontally) is governed by which processes you think are carried out first and NOT by changing the Start Day of the process which should remain set at 1.

The vertical position of the process is governed by which group you allocate it to.

Matthew and Peter are both capable of modelling so we can start the project by getting them to build Character 1 and Character 2 respectively in parallel.

Start by editing the process "Character 1 Build". Set one of the six Predecessors to "O Project Start". This means that the start of Character 1 Build is dependant on the position along the time line of Project Start. According to the brief, Matthew is capable of modelling so change the Group Label by selecting "Matthew". Peter is also capable of modelling so edit the process "Character 2 Build". Set one of the six Predecessors to "O Project Start". This means that the start of Character 2 Build is also dependant on the position along the time line of Project Start. Change the Group Label by selecting "Matthew".

You can now decide what processes Sarah is to do, or carry on with Matthew's next process which could be "Character 1 Rig". Edit Character 1 Rig and set one of the six Predecessors to "Character 1 Build". This means that the start of this process will not begin until Character 1 Build is finished.

Change the Group Label by selecting "Matthew".

Carry on editing all the processes by selecting predecessors and selecting group labels.

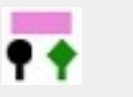
Don't forget to place in approval meetings and "changes" that should come immediately after approval meetings. Don't forget to save your data as described previously on a regular basis.

You can save the Gantt chart artwork by clicking right over the artwork and selecting "Save image as".

Extracting data from the chart for your letters or emails.

To extract data from the chart Click on the Schedule Report icon. From the Report Control window click on the "A selected period" radio button. Choose a Start Date of around 26th June. Choose an end date of around 28th August. From options, select "Report on one group only" and select a group, then click the Show Report button.

Key to the Learning Animation Website Schedule Icons:

ICON	Description
	Display Elements: Saving the Data and changing the way the chart looks.
	Schedule Settings: Setting the number of processes, the Chart Title and the Start Date
	Group Management: Setting the names of the schedule Participants.
Editing Icons	Description
	Predecessor List (The processes that have to be done before this one)
	Process Type (Activity, Event, Deadline Etc)
	Label (The name of the process)
	Group Label (Usually the person responsible)
	Start Day (Normally set to 1)(The predecessors normally determine where the process starts)
	Duration (Length in days of the process. Events & Deadlines don't use duration)
	Weekends (Included, Not included, Just Saturdays, Just Sundays)

Preparing a Detailed Budget:

(And how to work out what to charge for a project).

A budget is a financial plan for a defined period of time, usually for the length of time the project lasts.

Let us pretend that we are to produce a budget for a project which you and your team are going to execute for a client. The project is concerned with modelling and texturing a character and you are responsible for getting the job done and delivered.
Here are some examples of budgets you could quote to your client:-

The client's Budget Example 1:

Dear Mandy your project will cost £1,490.00

The client's Budget Example 2:

Dear Mandy your project will cost me about £1,490.00 so you will need to pay me £1,490.00

The client's Budget Example 3:

Dear Mandy your project will cost me about £1,490.00 so you will need to pay me £3,260.00

The problem with these three examples is that there is no detail of what the budget represents and will probably put off your client from working with you ever again.

Details of the budget are needed as well as the final total.

Supposing you are asking Sarah to do some modelling and texturing for you. She charges you £250 a day for modelling and £280 a day for texturing if she is using her own computer at home. If she works in your studio and uses your computers then she only charges £200 a day for modelling and £230 a day for texturing. You decide that you need to supervise the work and need her work in your studio. It will take her 4 days to do the modelling and 3 days for her to do the texturing.

This is what you will have to pay Sarah for her time on the project:-

Sarah's Charges

Activity	Number of Days	Daily Rate	Total for Activity
Modelling	4	200.00	800.00
Texturing	3	230.00	690.00
Total or Sarah			1,490.00

This table is fine for calculating how much Sarah will cost you but you cannot use this table as your client budget because there are hidden outgoings which need to be added like the cost of computers, office space in the form of rent and rates, heating, lighting and other things like a profit margin. If you charge the client the same as Sarah charges you, then she might as well work for the client directly and there is no need for you to be involved.

When we prepare a budget we must make sure the client pays for all your expenses and outgoings associated with their project. Your budget therefore, could look like this example:-

The client's Budget Example 4

Activity or Expense	Number of Days	Daily Rate	Total for Activity or Exps
Sarah's Modelling	4	200.00	800.00
Sarah's Texturing	3	230.00	690.00
Your time	7	200.00	1,400.00
Rent	7	35.00	245.00
Rates	7	15.00	105.00
Heating & Lighting	7	7.00	49.00
Computers	7	30.00	210.00
Total Outgoings			3,499.00
Profit Margin	5%	+ 174.95	174.95
Final Total			3,673.95

The problem with this example is that it is too detailed and also it gives away information to your client that really should be kept private. It is not really the client's business to know what your outgoings are. The only information your client really needs is the details of what he or she is going to pay.

The best way of doing this is to devise a "rate card".

The Rate Card:

The rate card is a list of services that you provide together with the cost of each service that you charge clients. Each of these services include all your overheads and your profit margin. An example of a rate card is below:-

Daily Rates for Animation Services at UWTSD

Service	Monday to Friday	Saturday to Sunday
3D Computer Animation	£400.00	£600.00
After Effects Compositing	£600.00	£800.00
Sound Dubbing	£400.00	Not Available
Picture Grading	£600.00	£800.00

The rates do not include cost of media (tapes, discs) or VAT

Let us set Sarah's daily rates for modelling at £300, for texturing at £340 and set your rate for production management, like in example 4, at £200. This should cover your overheads and profit margin but you could charge more depending of the quality of the service you are providing. The rate card for this project might look like this:-

Daily Rates for Modelling & Texturing Project

Service	Rate excludes VAT
Modelling	£300.00
Texturing	£340.00
Production Management	£200.00

Based on outgoings for Sarah and yourself the client budget could look like the next table:-

Dear Marcus the cost of your project is as follows:-

The Client's Budget Example 5

Activity	Number of Days	Daily Rate	Total for Activity
Modelling	4	300.00	1,200.00
Texturing	3	340.00	1,020.00
Production Management	7	200.00	1,400.00
Total			£3,620.00

This example tells the client what he/she is paying for each element of the project without revealing your outgoings which should be kept private. If the client is interested less detail then budget could presented like the one below:-

Dear Marcus the cost of your project is as follows:-

The Client's Budget Example 6

Activity	Total for Activity
Modelling	1,200.00
Texturing	1,020.00
Production Management	1,400.00
Total	£3,620.00

Budget Summery:-

The budget relies on the rate card and the scope of the project.

Devise a rate card which lists all the services you provide and the amount per day that you charge for that service. You should also include your own service as a production manager.

To set the charge for each service, start with the amount it costs you. If you are doing the work yourself, then decide what your daily worth is and set that as your daily rate. Once you know what the cost is for a service you should add on an amount which takes into account the additional outgoing expenses like office space in form of rent and rates, heating and lighting, and the cost of your computers. You should then add a profit margin of between 5 and 10 percent to each service, or more if you feel it is justified.

Scheduling Exercise E1:

Try the exercise below to get used to building and changing a schedule using the Learning Animation “Building a Gantt Chart Online”.

E1.

We will use the example of two processes, modelling and texturing. The start of the texturing is dependant on the finish of modelling. There is a project start event and a project deadline, (final delivery).

E1.1

Sarah starts work on the Modelling.

The start date for the modelling is dependant on the event called the “project start” and will take 4 days duration.

When Sarah finishes the modelling she must start the texturing which will take 3 days duration.

The client wants the finished project delivered by day 12

Build a schedule to show this time line.

E1.2 Sarah can’t start work on the modelling until Day 3.

Refresh the schedule to show this change.

Will the project still finish in time for the final delivery?

E1.3 The clients states that the final delivery has to change to day 10.

Refresh the schedule to show this change.

What effect on the schedule has this change made?

E1.4 How can we modify the schedule so that it will finish in time for the modified final delivery?

What about the Weekend?

Refresh the schedule to show this change.

E1.5 Sarah does NOT like working weekends. You decide to hire Peter to do the texturing.

Refresh the schedule to show this change.

Does this solve the problem of the late delivery?

E1.6 Sarah agrees to work on Saturday. Peter does not like working weekends either but agrees to work on Sunday.

Refresh the schedule to show this change.

Does this solve the problem of the late delivery?

E1.7 The clients states that the final delivery can now change to day 22.

He wants to meet on day 15 for a meeting because he might want to change the model.

If the client does want to change the model then it will take 2 days to change and 2 days to change the texture.

Refresh the schedule to show this change and the possibility of the required changes.

Will the project still finish in time for the final delivery?

E1.8 The clients states that the final delivery has now to changed to day 18.

Refresh the schedule to show this change.

Will the project still finish in time for the final delivery?

E1.9 If the final delivery can not now be met. What can be changed without Sarah and David working weekends?

E1.10 Print out a Report for Sarah which should include start dates and durations.

This is the data representation of stage E1.1

3.0_V_3_V_Your*Chart_V_2205_vVv_Milestones_V_Sarah_V_Peter_V_Crew*Mmbr*3_V_V_V_V_V_V_V_V_V_V_V
_vVv_D1A896_V_886060_V_888840_V_228822_V_116611_V_668866_V_888840_V_880000_V_884040_V_882020_V_FF
6060_V_FF8080_V_FFA0A0_V_0000AA_vVv_0_V_Project*Start_V_Milestones_V_Event_V_1_V_0_V_0_V_No_V_X_V_000
000_V_1_V_1_vVv_1_V_Modelling_V_V_Activity_V_1_V_1_V_4_V_No_V_0_V_FF8080_V_1_V_5_vVv_2_V_Texturing_V_
V_Activity_V_1_V_2_V_3_V_No_V_1_V_FFC080_V_5_V_10_vVv_3_V_Final*Delivery_V_V_Deadline_V_12_V_3_V_5_V_N
o_V_1,2,0_V_000000_V_12_V_12

Scheduling Exercise E2:

Try the exercise below to get used to building a more complex schedule using the Learning Animation “Building a Gantt Chart Online”.

The Production:

One Character, One Environment, Four Shots.

The Personnel:

Crew are David and Sarah. The client is Peter.

The Scope:

Index	Process	Process Type	Duration Days	Dependent On (1)	Dependent On (2)	Who Does it.
0	Project Start	Event	-	-	-	-
1	Character Build	Activity	6	Project Start	-	Sarah
2	Character Texture	Activity	5	Character Build	-	David
3	Character Approval	Event	-	Character Texture	-	Peter
4	Character Changes Build	Activity	2	Character Approval	-	Sarah
5	Character Changes Texture	Activity	2	Character Approval	Character Changes Build	David
6	Character Rig	Activity	3	Character Changes Build	-	Sarah
7	Environment Build	Activity	7	Project Start	-	Sarah
8	Environment Texture	Activity	5	Environment Build	-	David
9	Environment Approval	Event	-	Environment Texture	-	Peter
10	Environment Changes Build	Activity	1	Environment Approval	-	Sarah
11	Environment Changes Texture	Activity	2	Environment Approval	Environment Changes Build	David
12	Animation Shot 1	Activity	4	Environment Changes Texture	Character Changes Texture	Sarah
13	Animation Shot 2	Activity	5	Environment Changes Texture	Character Changes Texture	David
14	Animation Shot 3	Activity	8	Environment Changes Texture	Character Changes Texture	Sarah
15	Animation Shot 4	Activity	12	Environment Changes Texture	Character Changes Texture	David
16	Animation Approval	Event	-	Animation ALL	-	Peter
17	Animation Changes	Activity	2	Animation Approval	-	Sarah or David
18	Light ALL	Activity	3	Animation Changes	-	David
19	Render ALL	Activity	6	Light ALL	-	-
20	Composite ALL	Activity	8	Render ALL	-	Sarah
21	Final Deadline	Deadline	-	Composite ALL	-	-

This should produce a chart like this:-

Then set the Type, Label, Duration and Colour of each process:
Set the process “Render” Weekends to “Yes” (all others to “No”)

3.0_V_21_V_Your*Chart_V_2268_vVv_Milestones_V_Crew*Mmbr*1_V_Crew*Mmbr*2_V_Crew*Mmbr*3_V_V_V_V_V_V_V_V_V_V_V_V_V_VvV_D1A896_V_886060_V_888840_V_228822_V_116611_V_668866_V_888840_V_880000_V_884040_V_882020_V_FF6060_V_FF8080_V_FFA0A0_V_0000AA_vVv_0_V_Project*Start_V_Milestones_V_Event_V_1_V_0_V_0_V_No_V_X_V_000000_V_1_V_1_vVv_1_V_Char*Build_V_V_Activity_V_1_V_1_V_6_V_No_V_X_V_FF8080_V_1_V_9_vVv_2_V_Char*Texture_V_V_Activity_V_1_V_2_V_5_V_No_V_X_V_FFC080_V_1_V_6_vVv_3_V_Char*Approval_V_V_Event_V_1_V_3_V_5_V_No_V_X_V_000000_V_1_V_1_vVv_4_V_Char*Change*B_V_V_Activity_V_1_V_4_V_2_V_No_V_X_V_66FF66_V_1_V_3_vVv_5_V_Char*Chnage*T_V_V_Activity_V_1_V_5_V_2_V_No_V_X_V_66FF66_V_1_V_3_vVv_6_V_Char*Rig_V_V_Activity_V_1_V_6_V_3_V_No_V_X_V_FFFF80_V_1_V_4_vVv_7_V_Envir*Build_V_V_Activity_V_1_V_7_V_7_V_No_V_X_V_FF8080_V_1_V_10_vVv_8_V_Envir*Texture_V_V_Activity_V_1_V_8_V_5_V_No_V_X_V_FFC080_V_1_V_6_vVv_9_V_Envir*Approval_V_V_Event_V_1_V_9_V_5_V_No_V_X_V_000000_V_1_V_1_vVv_10_V_Envir*Change*B_V_V_Activity_V_1_V_10_V_1_V_No_V_X_V_66FF66_V_1_V_2_vVv_11_V_Envir*Change*T_V_V_Activity_V_1_V_11_V_2_V_No_V_X_V_66FF66_V_1_V_3_vVv_12_V_Animation*Shot*1_V_V_Activity_V_1_V_12_V_4_V_No_V_X_V_FF7DC7_V_1_V_5_vVv_13_V_Animation*Shot*2_V_V_Activity_V_1_V_13_V_5_V_No_V_X_V_FF7DC7_V_1_V_6_vVv_14_V_Animation*Shot*3_V_V_Activity_V_1_V_14_V_8_V_No_V_X_V_FF7DC7_V_1_V_11_vVv_15_V_Animation*Shot*4_V_V_Activity_V_1_V_15_V_12_V_No_V_X_V_FF7DC7_V_1_V_17_vVv_16_V_Anim*Approval_V_V_Event_V_1_V_16_V_5_V_No_V_X_V_000000_V_1_V_1_vVv_17_V_Anim*Changes_V_V_Activity_V_1_V_17_V_2_V_No_V_X_V_FF7DC7_V_1_V_3_vVv_18_V_Light*ALL_V_V_Activity_V_1_V_18_V_3_V_No_V_X_V_8080FF_V_1_V_4_vVv_19_V_Render*All_V_V_Activity_V_1_V_19_V_6_V_Yes_V_X_V_FF1929_V_1_V_7_vVv_20_V_Composite*All_V_V_Activity_V_1_V_20_V_8_V_No_V_X_V_A3E7FF_V_1_V_11_vVv_21_V_Final*Dealine_V_V_Deadline_V_1_V_21_V_5_V_No_V_X_V_000000_V_1_V_1

A better arrangement might be a chart like this:-

A Guide to Assignment 2 of Production Management