

# Course: BTEC Level 3 Information Technology

Unit 16: Cloud Storage and Collaboration Tools

## Assignment A: Things To Do

From Assignment Brief

[Assignment Brief on RonsTechhub](#)

<b>Vocational Scenario or Context</b>	<p>You have recently joined the IT department of a medium size manufacturing company as an IT support technician. The company runs a wide range of computer applications including stock control, manufacturing, order processing and personnel systems. All of the company data and applications are currently stored on servers located at the head office, however the IT director is keen to investigate whether cloud technologies would be of benefit to the company. Your supervisor has asked you to look into this and produce an analytical report.</p>
<b>Task 1</b>	<p>Write a report for your supervisor in which you provide a clear and balanced analysis of the different cloud technologies available. You need cover:</p> <ul style="list-style-type: none"><li>• An explanation of how IT is currently deployed in the company and how it meets its aims and needs</li><li>• The characteristics of different cloud technologies and delivery models including SaaS, PaaS and IaaS</li><li>• How cloud technologies and delivery models could be used to meet the company's aims and needs</li><li>• The impact the use of cloud technologies would have on all areas of the organisation</li><li>• Clear, reasoned justifications as to why one possible solution may be preferable to another.</li><li>• Legal requirements and their impact on use and deployment of cloud services</li></ul> <p>You need to provide a balanced consideration of the impact that cloud technologies would have on the organisation, both in terms of enhancing and improving current practice and how this will result in changes or challenges.</p>

## Assignment A: Explore the use of cloud technologies and tools in organisations.

Introduce the assignment.

What is it going to be about?

Cloud Technologies used in an organisation.

Steal notes from the assignment brief.

Steal notes from the other sections of the assignment (P1, P2, M1, D1).

[Link To Assignment Brief.](#)

In this assignment I will be focussing on four main points:

1. Explain how IT is currently deployed in an organisation and how it meets their needs.
2. Explain the different cloud technologies that could be used by an organisation and how it could meet their needs.
3. Compare the impact that different cloud technologies would have on an organisation and how it could meet their needs.
4. Analyse the impact that different cloud technologies would have on an organisation and how it could meet their needs.

P1 - Explain how IT is currently deployed in an organisation and how it meets their needs.

[Define IT with reference.](#)

Example: IT stands for Information Technology and is often associated to hardware and software. Hardware is defined as the tangible parts of a computer and software is defined as the programs that run on a computer.

[Define IT deployment with reference.](#)

[Define organisation with reference.](#)

How is IT deployed in your organisation. Medium sized Manufacturing Company. This is on the assignment brief.

**Vocational Scenario or Context**

You have recently joined the IT department of a medium size manufacturing company as an IT support technician. The company runs a wide range of computer applications including stock control, manufacturing, order processing and personnel systems. All of the company data and applications are currently stored on servers located at the head office, however the IT director is keen to investigate whether cloud technologies would be of benefit to the company. Your supervisor has asked you to look into this and produce an analytical report.

**PS: You do not need to write things in paragraphs and lists like I do.**

The organisation has several systems deployed, namely they are:

List them here.

All the applications (stock control, manufacturing, order processing and personnel systems).

All the hardware, some can be assumed (computers, routers, switches, firewall).

Data, stored in the head office (stored on a server).

Types of IT deployment

Give a definition for each one.

Give a reference for each one.

- 1) [On premises deployment.](#)
- 2) [Cloud deployment.](#)
- 3) [Hybrid cloud deployment.](#)

This organisation has chosen to go for .....

It seems to be meeting their needs as this is the system they currently have in place.

There has been no report of a system not working as it should.

The managers are simply keen to figure out whether the cloud can offer an advantage.

The systems are connected over some kind of network which allows for applications and data to be stored on a server in the head office.

I assume the PCs can connect to the data on the servers at the head office with little to no issue.

This would indicate that the needs of the company are being met by the current deployment.



P2 - Explain the different cloud technologies that could be used by an organisation and how it could meet their needs.

[Define the Cloud with reference.](#)

[Why do some companies use the cloud with reference?](#)

[Cloud computing models \(also on the specification\).](#)

- Software as a Service (SaaS) – web-based applications for end users
- Platform as a Service (PaaS) – a set of tools and services to help make developing and deploying applications more efficient
- Infrastructure as a Service (IaaS) – hardware and software needed for a functioning system to operate.

We only need to explain here then compare and analyse later.

Keep this part relatively simple.

[SaaS definition with reference.](#)

What it is?

How is it beneficial?

[PaaS definition with reference.](#)

What it is?

How is it beneficial?

[IaaS definition with reference.](#)

What it is?

How is it beneficial?

M1 - Compare the impact that different cloud technologies would have on an organisation and how it could meet their needs.

*I would do compare and analyse together.*

[Define compare with reference.](#)

When comparing I would recommend a simple table that shows features or small paragraphs that details each subset.

[Saas vs PaaS vs IaaS Google Search.](#)

[Saas vs PaaS vs IaaS Google IMAGE Search.](#) This is really good.

[Saas vs PaaS vs IaaS Comparison from IBM.](#)

[Saas vs PaaS vs IaaS Comparison from BigCommerce.](#)

[Saas vs PaaS vs IaaS Comparison from Google Cloud.](#)

[Saas vs PaaS vs IaaS Comparison from RedHat.](#)

Look at google images and make your own table.

It can have more points or less points.

Highlight or differentiate the things that you manage in each type of cloud model.

	On Premises	SaaS	PaaS	IaaS
Application				
Data				
Runtime				
Middleware				
Operating System				
Virtualisation				
Servers				
Storage				
Networking				

D1 - Analyse the impact that different cloud technologies would have on an organisation and how it could meet their needs.

<b>Task 1</b>	<ul style="list-style-type: none"><li>• The impact the use of cloud technologies would have on all areas of the organisation</li><li>• Clear, reasoned justifications as to why one possible solution may be preferable to another.</li><li>• Legal requirements and their impact on use and deployment of cloud services</li></ul> <p>You need to provide a balanced consideration of the impact that cloud technologies would have on the organisation, both in terms of enhancing and improving current practice and how this will result in changes or challenges.</p>
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[Define analyse with reference.](#)

Now that you know all about cloud

How can each cloud computing model meet the need of this company?

Look at all the things that the company needs to have.

We made a list previously under P1.

Use the compare table above.

The short answer is yes, they can all meet the needs but to what degree and with what level of difficulty.

Can SaaS meet the needs of the company? If so, how?

The good of SaaS over the others.

The bad of SaaS.

What changes would occur for the normal people?

Can PaaS meet the needs of the company? If so, how?

The good of PaaS over the others.

The bad of PaaS.

What changes would occur for the normal people?

Can IaaS meet the needs of the company? If so, how?

The good of IaaS over the others.

The bad of IaaS.

What changes would occur for the normal people?

Legal requirements:

- 1) Data Privacy and Protection
- 2) Contractual Obligations
- 3) Intellectual Property
- 4) Data Location and Jurisdiction
- 5) Compliance and Audit
- 6) E-discovery
- 7) Dispute Resolution
- 8) Exit Strategy





# Assignment B and C: Things To Do

From Assignment Brief

## [Assignment Brief on RonsTechhub](#)

<b>Vocational Scenario or Context</b>	You have recently joined the IT department of a medium size manufacturing company as an IT support technician. The company runs a wide range of computer applications including stock control, manufacturing, order processing and personnel systems. All of the company data and applications are currently stored on servers located at the head office, however the IT director is keen to investigate whether cloud technologies would be of benefit to the company. Your supervisor has asked you to look into this and produce an analytical report.
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<b>Task 1</b>	<p>Write a report for your supervisor in which you provide a clear and balanced analysis of the different cloud technologies available. You need cover:</p> <ul style="list-style-type: none"><li>• An explanation of how IT is currently deployed in the company and how it meets its aims and needs</li><li>• The characteristics of different cloud technologies and delivery models including SaaS, PaaS and IaaS</li><li>• How cloud technologies and delivery models could be used to meet the company's aims and needs</li><li>• The impact the use of cloud technologies would have on all areas of the organisation</li><li>• Clear, reasoned justifications as to why one possible solution may be preferable to another.</li><li>• Legal requirements and their impact on use and deployment of cloud services</li></ul> <p>You need to provide a balanced consideration of the impact that cloud technologies would have on the organisation, both in terms of enhancing and improving current practice and how this will result in changes or challenges.</p>
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Assignment B - Design and deploy a cloud-based collaboration service to meet a client's needs.

Assignment C - Manage and review a cloud-based collaboration service to meet a client's needs.

<b>Vocational Scenario or Context</b>	You have recently joined the IT department of a medium size company. All of the company data and applications are currently stored on servers located at the head office, however the IT director is keen to investigate whether cloud technologies would be of benefit to the company. You have been asked to implementing a pilot cloud based collaboration solution for a small department in the company who write technical manuals for the company products. The collaboration system needs to allow the 5 people who work in the department to have cloud based storage areas where they can collaborate on word processed documents and spreadsheets. They also need to be able to share calendar appointments. Users should be able to access the system via at least two different browsers from desktop operating systems and at least one mobile operating system.
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<b>Task 1</b>	<ul style="list-style-type: none"><li>• Produce a plan for a cloud based collaboration solution to meet the client needs, including an explanation of the requirements and technical specifications for the suggested solution. Review your plan with others (such as potential users) to improve the quality, effectiveness and appropriateness of your plan.</li><li>• Write a justification of your planning decisions, including a consideration of the risks to the client and their data and the measures taken to reduce the impact of these.</li><li>• Develop the cloud storage and collaboration solution following the plan you produced, providing evidence that you have deployed appropriate services and set up system users</li><li>• Provide documentation that you have tested the cloud storage and collaboration solution to ensure it works and meets the client's needs.</li><li>• Provide evidence that you have managed the cloud storage and collaboration solution over a period of at least 2 weeks carrying out basic maintenance and applying updates and changes as required.</li></ul>
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B - P3 - Produce plans for a cloud storage and collaboration solution to meet a client's needs.

Produce a plan for a cloud based collaboration solution to meet the client needs, including an explanation of the requirements and technical specifications for the suggested solution. Review your plan with others (such as potential users) to improve the quality, effectiveness and appropriateness of your plan.

What does this client need?

Have a look at the assignment brief and the specification.

[Define requirements with reference.](#)

[Define technical specification with reference.](#)

### Requirements

A cloud-based collaboration solution:

Five people must be able to work on it.

Word processing.

Spreadsheets.

Share calendar.

Access using 2 browsers.

Access using mobile phone OS.

Security (implied).

### Possible Options

I will stick to Google Drive or OneDrive.

Requirements	Google Drive	Office 365
Maximum people collaborating	100 people	No limit
Word Processing	Yes (Google Docs)	Yes (Microsoft Word)
Spreadsheet	Yes (Google Sheets)	Yes (Microsoft Excel)
Calendar Sharing	Yes (Google Calendar)	Yes (Outlook Calendar/Teams)
Accessible from Google Chrome	Yes	Yes
Accessible from Firefox	Yes	Yes
Accessible from Microsoft Edge	Yes	Yes
IOS and/or Android	IOS and Android	IOS and Android
Security	Yes (2 factor authentication)	Yes (2 factor authentication)

Choose the system which you think would be a better for the task at hand, explain why. Explain in a paragraph or in the section below.

### **Technical Specification**

*Specify/say what is going to be done.*

*Then say why it is going to be done/justification.*

#### Collaborative Working (Five people or more)

1. Two admin accounts will be created which are different from the working accounts.
2. Two factor authentication will be enabled on all the accounts.
3. Five worker accounts will be created.
4. A shared folder will be created on the chosen platform, all seven people will be added to the folder, they will all have edit rights.
5. Justification:
  - a. Admin accounts will enable account recoveries to take place.
  - b. The shared folder will allow for collaborative working.
  - c. Two factor authentication to limits the risk of hacks.
  - d. Only the admin accounts can delete other accounts.
  - e. Only the admin accounts will be able to delete files (two factor authentication delete).

#### Word Processing (Collaboratively)

How WILL this be done?

PDF

Word document

#### Spreadsheets (Collaboratively)

How WILL this be done?

#### Calendar Sharing

How WILL this be done?

List the other things from the requirements and say/specify how you PLAN to do them.

Get comments on the plan.

User 01 Feedback and Comments

User 02 Feedback and Comments

User 03 Feedback and Comments

Feedback Review Section

A pool of comments from people.

You can do as many as you think would make sense.

Comment	Choice
User 01 said this thing, positive or negative. SECURITY.	Agree
User 02 said this thing, positive or negative.	Disagree

Possible Changes to the plan you want to make.

Maybe use OneDrive instead of Google Drive, you MUST state the reason for the change.

How will this change help.

B - P4 - Develop a cloud storage and collaboration solution to meet a client's needs.

From the options you compared, choose one and develop/implement the solution.

I would do this with screenshots.

Show every single step.

Make a list of things that need to be done. Mine is not an exhaustive list.

Do the thing, screenshot it.

Test it, screenshot it.

Task	Completeness	Screenshots
Create admin account 1	Completed	Taken
Create admin account 2	Completed	Taken
Create user account 1	Completed	Taken
Create user account 2	Completed	Taken
Create user account 3	Completed	Taken
Create user account 4	Completed	Taken
Create user account 5	Completed	Taken
Create a folder	Completed	Taken
Share that folder with all accounts		
Create a word-processed document		
Test word processed document with multiple users having edit access		
Create a spreadsheet document		
Test spreadsheet document with multiple users having edit access		
Create a calendar entry		
Share calendar entry with group members		
Test on Google Chrome desktop		
Test on Microsoft Edge desktop		
Test on Firefox desktop		
Download the app for IOS		
Download the app for Android		
Access folder on IOS app		
Access word processed document on IOS app		
Access spreadsheet document on IOS app		
Edit .....		

Create All Accounts

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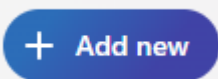
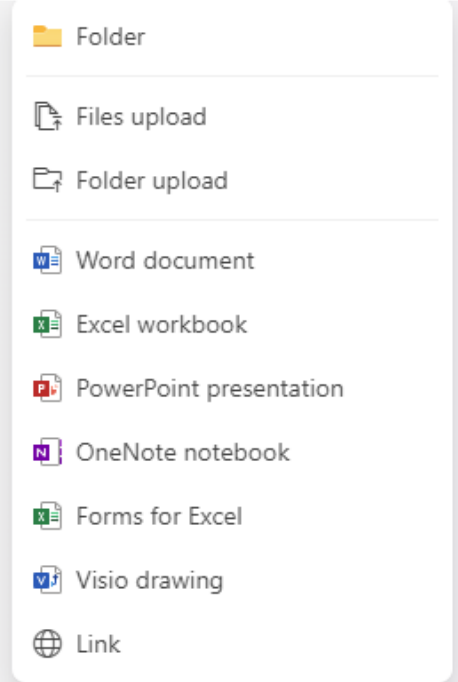
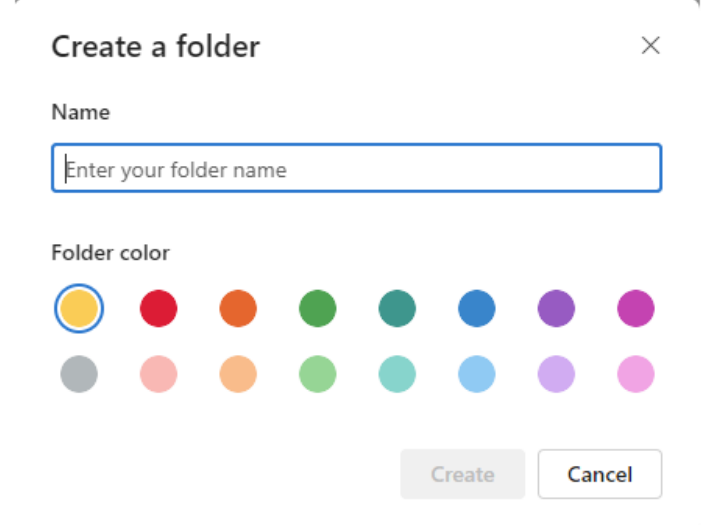
Create an account.




Create all the users.

As i will not actually have access to this I will skip to the create of folders and sharing files.

If you really want to go above and beyond you could try it for a month for free to check out what features are available to you.

## Create A Folder

 <p>A blue button with a white plus sign and the text "Add new".</p>	<p>Once logged into OneDrive click on the "Add New" button, located top left of the screen.</p>
 <p>A vertical menu with the following items: Folder, Files upload, Folder upload, Word document, Excel workbook, PowerPoint presentation, OneNote notebook, Forms for Excel, Visio drawing, and Link.</p>	
 <p>A dialog box titled "Create a folder" with a close button (X). It contains a "Name" field with the placeholder text "Enter your folder name", a "Folder color" section with 16 color swatches, and "Create" and "Cancel" buttons at the bottom.</p>	

<p><b>Create a folder</b> <span>✕</span></p> <p>Name</p> <input data-bbox="147 239 758 289" type="text" value="Domentation Team 2024"/> <p>Folder color</p> <div data-bbox="147 380 758 493"></div> <p><input data-bbox="496 548 621 596" type="button" value="Create"/> <input data-bbox="634 548 758 596" type="button" value="Cancel"/></p>	
<p> <b>Domentation Team 2024</b> ...   A few seconds ago</p>	<p>In the last box, explain why doing this task was important.</p>

B - M2 - Justify planning and implementation decisions, including risks, showing how they will provide an effective solution to meet a client's needs.

You might have made some changes in the implementation section.

What change was made, explain why the change was made.

If you did P3 based on my suggestion, this would have already been covered.

P5 - Test and manage a cloud storage and collaboration solution, confirming that it meets the client's needs.

If you did P4 based on my suggestion, testing would already be completed.

Management could come in the form of comments people want.

You are the admin; you can add and remove features.

You can also delete files if two factor authentication delete was enabled.

In short fix issues that might have come up.

## P6 - Review the extent to which the cloud storage and collaboration solution meets the client's needs.

What was needed vs what was done.

The original list of things is in the requirements section.

There was a total of 10 items on the list that needed to be completed.

Eight items were completed, two remain unfinished.

Requirement	Completeness
A cloud-based collaboration solution:	Completed
Five people must be able to work on it.	Unfinished
Word processing.	Completed
Spreadsheets.	
Share calendar.	
Access using 2 browsers.	
Access using mobile phone OS.	
Security (implied).	

What items were not completed?

Explain the reason/s for them not being done.

## M3 - Optimise the cloud storage and collaboration solution to meet the client's needs.

Optimise means to make better. Definition with reference.

How can we make this solution better?

Going back and making at least two changes that would make the system better should be fine.

Maybe manage access OneDrive. Specify view and edit permissions.

Favourite.

Alternative: The platform chosen, Google Drive or OneDrive is a fully managed system. Meaning, there is little to no optimisation that can be done as the company oversees all the updates and backend functionality. As such the only optimisation/improvements that can be made can be done from the admin console.

D2 - Evaluate the plan and optimised solution against a client's needs.

Good for plan.

Good for solution.

Bad for plan.

Bad for solution.

What could be done better in the future for plan.

What could be done better in the future for solution.

In hindsight.

What was good about the plan?

Were there alternatives?

What could have been improved on the plan?

What was good about the implementation?

Were there alternatives?

What could have been improved with the implementation?

In future. Local system setup. Two different clouds used for sync and backup.

Google Drive

OneDrive

D3 - Demonstrate individual responsibility, creativity and effective self-management in the design, development and review of cloud storage and collaboration solutions.

<https://www.youtube.com/watch?v=zC22yPmc6Kw>

Project management.

Gantt Chart.

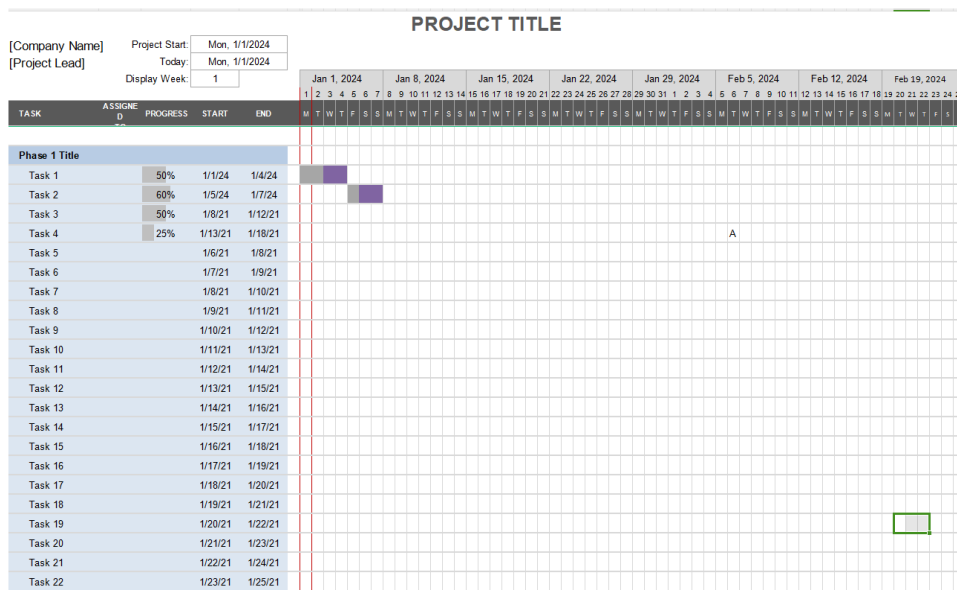
Every single task can be added to show a work breakdown structure.

Have a look at the templates on the website.

You also need to present evidence that you have shown individual responsibility, effective time-management in your design and development of the cloud storage and collaboration solution making high-quality justified recommendations and decisions. This should include a task plan for completing the assignment and a witness testimony from your tutor. For example, you need to show how you have:

- Planned and managed your time and met targets.
- Reviewed and responded to outcomes including the use of feedback from others
- Behaved appropriately while completing the assignment – including professionalism, etiquette, being supportive of others, timely and appropriate leadership, accountability and individual responsibility
- Evaluated outcomes to help inform high-quality justified recommendations and decisions
- Used appropriate methods of communication effectively

### Gantt Chart



## References

Article Name: What is Information Technology?

Website Name: Cisco

Link: <https://www.cisco.com/c/en/us/solutions/enterprise-networks/it-information-technology-explained.html>

[Link to Information](#)

Article Name: What is Computer Hardware?

Website: SolarWinds

Link: <https://www.solarwinds.com/resources/it-glossary/computer-hardware>

[Link to Information](#)

Article Name: Types of Software

Website Name: Indeed

[Link to Information](#)

Article Name:

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