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Oxford Cambridge and RSA

Cambridge **TECHNICALS LEVEL 2**

IT

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Unit 14

Creating mobile applications for business

Model assignment

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Contents

Please note:

You can use this assignment to provide evidence for summative assessment, which is when the learner has completed their learning for this unit and is ready to be assessed against the grading criteria.

You can use this assignment as it is, or you can modify it or write your own; we give more information in this document under Guidance for tutors.

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Guidance for tutors on using this assignment

General

OCR Cambridge Technical model assignments are available to download from our website: www.ocr.org.uk.

The purpose of this assignment is to provide a scenario and model of tasks that are typical of how IT practitioners would create mobile applications for business, to enable you to assess your learner against the requirements specified in the grading criteria. The scenario and its tasks are intended to give a work-relevant reason for applying the skills, knowledge and understanding needed to achieve the unit.

This assignment will not instruct learners how to meet the highest grade. Whether learners achieve a pass, merit or distinction will depend on what evidence they produce.

You can modify the scenario we provide in this assignment to make it more relevant to your local or regional needs. Please refer to the information under 'Modifying the model assignment' later in this section.

You don't have to use this assignment. You can use it as a guide to help you to design your own assignment, and we provide an assignment checking service. You'll find more information on these matters in section 8 of the qualification handbook.

In the tasks, we'll refer to the format of evidence. Learners are **not** required to follow that format **unless** we tell them otherwise.

It's essential that the work every learner produces is their own. Please make sure you read through the information we give on authenticity in section 8 of the qualification handbook and make sure that your learners and any staff involved in assessment understand how important authenticity is.

We provide this assignment to be used for summative assessment. You must not use it for practice or for formative assessment.

Before using this assignment to carry out assessment

Learners will need to take part in a planned learning programme that covers the knowledge, understanding and skills of the unit.

When your learners are ready to be assessed, they must be provided with a copy of the following sections of this assignment:

- General information for learners
- Assignment for learners
- Evidence Checklist

They may carry out preparation prior to undertaking the tasks and there is no time limit for this.

When completing the assignment

You should use this assignment in conjunction with the unit specification and qualification handbook.

The assignment should take between 8 and 9½ hours.

Information to support the scenario/tasks

It is important that the tutor provides the learners with further information in relation to the background to Progress Mobile Solutions and the services it provides. This will support the tutor when answering questions learners may have in order to clarify what they are required to do and gather the information they need.

Resources to complete the tasks

There are resource requirements for this assignment. Every learner will need access to the following resources:

- Learners will need access to mobile application development software and to an emulator or mobile device to create, view, update and improve their mobile application.
- A sample of the data files is provided (**see Appendix**). The tutor should create a relational database of pet owners, pets, appointments and vaccinations as well as unique user 4 digit pin numbers for learners to use with their mobile application.
- The tutor will need to ensure that the database files can be accessed via a mobile application.

Time

You should plan for learners to have 8–9½ hours to complete this assignment.

Learners must be allowed sufficient time to complete all the tasks. The amount of time may vary depending on the nature of the tasks and the ability of individual learners. To help with your planning, against each of the tasks we've given an indication of how long it should take.

Learners can produce evidence in several sessions.

Format of evidence

Learners have to produce evidence that demonstrates how they have met the grading criteria. At the very least they must produce evidence that meets **all** of the pass criteria.

Please make sure your learners realise that missing just one pass criterion means they will not pass the unit, even if they have successfully met the merit and distinction criteria.

It's possible that certain formats for evidence can naturally cover several grading criteria and avoid the need for excessive amounts of evidence. For example, a report can be a good way to pull together evidence to meet several grading criteria.

For more guidance on generation and collection of evidence, please refer to the section 8 'Internal Assessment', in the qualification handbook.

Group work

This assignment has not been written to allow for group work.

After completing the assignment

Once the learner has submitted their work to you to be assessed, you must judge or 'mark' the work against the grading criteria for the unit and identify one grade for the unit. For further information about assessment, please refer to section 8 of the qualification handbook.

Your assessment decisions must be quality assured across the cohort of learners in your centre who are being entered for the same unit. This must be done through an internal standardisation process. We give information on internal assessment and standardisation in the qualification handbook.

Reworking the assignment

If you and the learner feel they've not performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. If a learner is working on improving their work before it is resubmitted, you and the learner must continue to make sure the work is the learner's own.

Any feedback you give to the learner must not direct them on how to improve their work. You can identify what area of the work could be improved but you cannot give the learner any details about how they could improve it. You must follow the guidelines given in section 8 of the qualification handbook under 'Authenticity of learner work'.

Modifying the model assignment

The tasks in this assignment allow learners access to the full range of grades detailed in the grading criteria of this unit.

If you modify this assignment you must **not** change the grading criteria provided in the tasks for the learner or in the evidence checklist. These grading criteria are taken from the unit.

You can modify the scenario to suit your local or regional needs and the tasks may be contextualised to match any changes you have made to the scenario. If you supply your own drawings to support a different scenario, these must be sufficiently detailed for learners to complete the tasks.

You can modify the type of evidence and the format it takes, unless we expressly state that evidence must take a specific format.

You must also make sure that you avoid discrimination, bias and stereotyping and support equality and diversity. For more information, please see the section 'Designing your own assignments for internally assessed units' in section 8 of the qualification handbook.

If modifications are made to the model assignment, whether to the scenario alone, or to both the scenario and individual tasks, it's your responsibility to make sure that all grading criteria can still be met and that learners can access the full range of grades.

If you're using this model assignment and delivering the Diploma you have an opportunity to secure meaningful employer involvement by working with an employer to modify it.

General information for learners

Q   ***What do I need to do to pass this assignment?***

A   You need to produce evidence to meet the requirements of **all** the pass criteria for the unit this assignment relates to. If you miss just one pass criterion, you will not achieve this unit and will receive an unclassified result.

Q   ***What do I need to do if I want to get a merit or distinction for this assignment?***

A   For a merit, you need to produce evidence to meet the requirements of **all** the pass criteria for the unit this assignment relates to **and** you need to produce evidence to meet **all** the merit criteria.

       For a distinction, in addition to the above, you also need to meet **all** the distinction criteria for this unit.

Q   ***What help will I get?***

A   Your tutor will support you when completing this assignment and will make sure that you know what resources or facilities you need and are allowed to use. We've given your tutor information about how much support they can give you.

Q   ***What if I don't understand something?***

A   It's your responsibility to read the assignment carefully and make sure you understand what you need to do and what you should hand in. If you are not sure, check with your tutor.

Q   ***I've been told I must not plagiarise. What does this mean?***

A   Plagiarism is when you take someone else's work and pass this off as your own, or if you fail to acknowledge sources properly. This includes information taken from the internet.

       It's not just about presenting a whole copied assignment as your own; you will also be plagiarising if you use the ideas or words of others without acknowledgement, and this is why it's important to reference your work correctly (see Q&A below for more information on referencing).

       Plagiarism has serious consequences; you could lose the grade for this unit or you may not be allowed to achieve the whole qualification.

       Always remember that the work you produce must be your own work. You will be asked to sign a declaration to say that it is.

Q   ***What is referencing and where can I find out more information about it?***

A   Referencing is the process of acknowledging the work of others. If you use someone else's words and ideas in your assignment, you must acknowledge it, and this is done through referencing.

       You should think about why you want to use and reference other people's work. If you need to show your own knowledge or understanding about an aspect of subject content in your assignment, then just quoting and referencing someone else's work will not show that **you** know or understand it. Make sure it's clear in your work how you are using the material you have referenced **to inform** your thoughts, ideas or conclusions.

       You can find more information about how to reference in *The OCR Guide to Referencing* available on our website: http://www.ocr.org.uk/Images/168840-the-ocr-guide-to-referencing

Q   *Can I work in a group?*

A   This assignment hasn't been written to include group work.

Q   *Does my work for each task need to be in a particular format?*

A   You can present your work in a variety of ways – it can be handwritten, word-processed, on video or in digital media. What you choose should be appropriate to the task(s) and your tutor can advise you about this. There may be times when you need proof that you have completed the work yourself: for example, if you do something during work placement that you want to use as evidence, the tutor might ask the employer to provide a witness statement.

Make sure you check the wording in each task carefully. For each task, we'll tell you if your evidence has to be in a specific format:

- If we use the word '**must**', for example 'You must produce a report' or 'Your evidence/work must include a diagram', then you must produce the work in the stated format.
- If we use the word '**could**', for example 'You could include sketches of your ideas' or 'You could do this by annotating your diagram', this means that you are not required to follow the format we have given, but you must make sure that the work you do produce allows you to demonstrate the requirements of the grading criteria.

If you are unsure about what evidence you need, please ask your tutor.

Q   *Can I ask my tutor for feedback on my work?*

A   Yes, but they can't give you detailed feedback.

We have given your tutor instructions on what kind of feedback they can give you. For example, they are **not** allowed to tell you exactly what to do to make your work better, but they **can** remind you about what they've taught you and you can use this additional learning to try and improve your work independently. They can say what they've noticed might be wrong with your work, for example if your work is descriptive where an evaluation is required, but your tutor can't tell you specifically what you need to do to change it from a description to an evaluation – you will need to work out what you need to do and then do it for yourself.

Q   *When I have finished, what do I need to do?*

A   If you have included the personal details (such as name, address or date of birth) of someone other than yourself in your work, this must be blanked out (anonymised) – your tutor will tell you how to do this. You don't need to do this for information contained in references.

You can complete the evidence checklist to show your tutor where they can find the evidence for each grading criterion in your work.

You should make sure your work is labelled, titled and in the correct order for assessing.

Hand in the work that you've completed for each task to your tutor. They might ask to see your draft work, so please keep your draft work in a safe place.

Q   *How will my work be assessed?*

A   Your work will be marked by someone in your centre who has been authorised to do so. They will use the information in the grading criteria to decide which grade your work meets. The grading criteria are detailed in each unit and are also given in the tasks within this assignment. Please ask your tutor if you are unsure what the grading criteria are for this assignment.

Scenario

Mobile Applications Event

Progress Mobile Solutions, designs and creates mobile applications for small to medium sized businesses. It wants to inform potential new clients about the advantages of using mobile applications in their businesses. The marketing and sales team are planning an event next month. It requires a leaflet to inform delegates about the uses of mobile applications in business. Most of the audience will know little or nothing about the technologies and will want to fully understand the uses of mobile applications in business.

Task 1: Describe the uses of mobile applications within business environments

(This task should take between 1 and 1½ hours.)

Learning Outcome 1: Know the uses of mobile applications within business environments

Your task is to: describe the uses made today of mobile applications used by businesses. You need to describe different uses for mobile applications, giving examples of where and how they are used. You could include appropriate illustrations. The purpose is to help businesses make decisions about implementing a mobile application in their business.

Pass	Merit	Distinction
P1: Describe the uses of mobile applications within business		
Evidence		
A leaflet. This must include: • a description of the uses of mobile applications within business; • sufficient detail to enable business managers to make a decision about whether they could implement the use of mobile applications in their business. It is recommended that different uses are investigated. You could enhance your descriptions with appropriate illustrations.		

After a very successful event, Progress Mobile Solutions has been approached by a local business. Hegwell Veterinary Practice, a veterinary practice specialising in small animal care, wants to explore the possibility of improving its service to customers by providing a mobile application which allows customers to see the following records for their pets:

• vaccination records;
• medication records;
• appointments booked.

It is hoped that this mobile application will enable its customers to provide electronic evidence of up-to-date vaccinations and medication when taking their pets to catteries and kennels.

Progress Mobile Solutions would like you, as a mobile app developer, to plan and create a mobile application for the Hegwell Veterinary Practice.

Task 2: Create a mobile application to meet business requirements

(This task should take between 4 and 4½ hours.)

Learning Outcome 2: Be able to create mobile applications to meet business requirements

Your task is to: plan a mobile application to meet the business requirements provided. Create a mobile application based on your plans. Test the functionality of the mobile application and update it as required.

Client requirements

Client name – Hegwell Veterinary Practice.

Purpose – to enable pet owners to view the vaccination records for their pet(s), view appointments and view medication records.

Audience – pet owners with pets registered at the veterinary practice.

Functions – login with pin. The pin will have been set up for the customers prior to using the mobile application. Customers will need to use the 4 digit pin to access the mobile application service. Customers will need to be able to: navigate between the different services; view appointments that they have made for their pets; view vaccination records; and view current medication for their pets. Pet owners should also be able to print the onscreen details.

Content – a splash screen for the login and at least 3 user interfaces, navigation between the screens, the veterinary practice logo on the login/splash screen page. See the Appendix for the veterinary practice logo. The details displayed on screen will be accessed from the Hegwell Veterinary Practice database. See details of database content below.

Limitations:

Time – they would like the application to be completed within 5 weeks.

Budget – the budget is £15,000

App Icon – an icon is required for the App which uses the logo for the veterinary practice.

Appearance – the layout, colours and fonts should be appealing and should incorporate the colours in the Hegwell Veterinary Practice logo – orange and yellow ochre. (See below).

Software – they have no particular software requirements for the creation of the mobile application, but it must run on an Android device.

Connections – the mobile application will need to connect to the veterinary practice database so that the information is up-to-date.

Login – customers will be provided with their unique 4 digit pin when they register with the veterinary practice to use the mobile app.

Cost – customers will not be charged for using the mobile application.

Devices – the mobile app should work on Android devices.

Updates – the mobile application will be updated at a later date to include more features, such as appointment bookings and cancellations and be available across a wider number of platforms.

Risks – security of login pin and customer/pet details. The database accessed is not the full database held by the veterinary practice so that customer and pet details are kept to the minimum required. *Therefore, you have to limit each owner's access to their own personal information within the complete database.*

User needs – some customers have several pets and will want to use the same pin number to view details for all their pets. Users have expressed a wish to navigate between screens by buttons rather than menus.

Pass	Merit	Distinction
P2: Plan a mobile application to meet business requirements		
P3: Create a mobile application for business	M1: Test functionality of the mobile application and update if required	
Evidence		

Plan.

This must include:

- solutions;
- software to be used;
- devices;
- plans of the user interfaces;
- plans of the components and their properties;
- content for mobile application;
- controls;
- links to external data services;
- security;
- design sketches/electronic designs for user interfaces, annotated code, flow diagrams.

The product – a working mobile application.

The evidence will be the completed product, along with evidence that the product works as intended. Evidence of how well the product you created from your plan actually works (the functionality), could be video recorded evidence or the completed product could be made available for review by the moderator.

Test plan and updates.

This documentation will include your full test plan and results, which will confirm the testing of how well your product worked during its creation and again at the end of the final testing stage.

This must include:

- details of iterative testing carried out on the product as it was created;
- a record of the changes and adjustments made as a result of testing;
- details of the end testing of the product.

Your mobile application for Hegwell Veterinary Practice is now complete and you need to obtain feedback from the stakeholders on the product you have created.

Task 3: Improve the mobile application based on feedback

(This task should take between 3 and 3½ hours.)

Learning Outcome 3: Be able to improve mobile applications based on feedback

Your task is to: gather feedback from stakeholders on the mobile application you have created. Make improvements to the mobile application based on the feedback you receive. Justify the improvements you have made to your mobile application.

Pass	Merit	Distinction
P4: Gather feedback on the mobile application	M2: Make improvements based on feedback	D1: Justify the improvements made to the mobile application
Evidence		

Questionnaire or audience feedback.

This must include:

- completed questionnaires or audience feedback forms with questions relating to the user and client needs and business requirements.

Mobile application with improvements implemented.

This must include:

- an updated version of the mobile application with improvements made in response to the feedback received in P4.

A report, presentation or a recording of the presentation delivered to an audience.

This must include:

- a justification of the improvements made to the mobile application based on the business requirements and feedback received from stakeholders.

Appendix:

Logo

Database files

tbl-owners

Owner ID number	Owner name	Mobile	Pin
1	William Jones	07369 223311	3215
2	Henry Baker	07944 545512	9124
3	Margaret Hill	07819 939391	8932
4	Rose Green	07355 214552	7560
5	Hilary Potts	07551 388160	1272
6	Lucy Fowler	07457 699122	8865
7	Jill Farrington	07412 525489	2398
8	John Needham	07322 234891	4589
9	Kerena Pugh	07369 244878	9176
10	Cameron Wilson	07419 767355	2162
11	Stan McBride	07354 865710	4213
12	Charlie Donoghue	07621 675411	9246
13	Naomi Finlay	07363 534420	1870
14	Zarina Beruya	07992 765930	1562
15	Jake Tawaba	07583 425641	2684

The Pin number field is indexed with no duplicates allowed so that the numbers are unique.

tbl-pets

Pet ID	Pet Name	Animal	Owner
1976870233	Billy	dog	William Jones
472843942	Ringo	dog	Hilary Potts
532500271	Buster	dog	Naomi Finlay
1242604789	Holly	cat	Charlie Donoghue
761339154	Pip	cat	Kerena Pugh
70039121	Molly	cat	Charlie Donoghue
1565567207	Fluff	hamster	Naomi Finlay
1589800291	Jerry	tortoise	Stan McBride
3419240	Lassie	dog	John Needham
1010913695	Spot	rabbit	Hilary Potts
370987419	Rosie	rabbit	Jill Farrington
1730288192	Blackie	cat	Kerena Pugh
345251137	Max	dog	Henry Baker
2073135726	Rocky	dog	Zarina Beruya
1886660951	Susie	cat	Margaret Hill
72314444	Shilling	rabbit	Hilary Potts
906931037	Tuppence	dog	Lucy Fowler
1959374170	Honey	cat	Rose Green
1320498950	Bruno	dog	Henry Baker

tbl-vaccinations

Vacc ID	Vaccination type	Date	Pet Name
1	cat influenza	08/03/2017	Blackie
2	cat influenza	07/03/2017	Holly
3	cat influenza	15/03/2017	Honey
4	cat influenza	01/02/2017	Molly
5	cat influenza	11/01/2017	Pip
6	cat influenza	16/12/2016	Susie
7	kennel cough	07/11/2016	Billy
8	kennel cough	10/03/2017	Bruno
9	kennel cough	06/03/2017	Buster
10	kennel cough	10/01/2017	Lassie
11	kennel cough	15/11/2016	Max
12	kennel cough	10/03/2017	Ringo
13	kennel cough	05/12/2016	Rocky
14	kennel cough	30/09/2016	Tuppence
15	feline enteritis	07/03/2017	Holly
16	feline enteritis	08/03/2017	Blackie
17	feline enteritis	15/03/2017	Honey
18	feline enteritis	11/01/2017	Pip

tbl-medication

Med ID	Medication	Date	Quantity	Dose	Pet Name
1	Frontline	10/03/2017	6	1	Tuppence
2	Drontal	09/03/2017	1	1	Buster
3	Braveco	21/02/2017	1	1000 mg	Lassie
4	Droncit	18/01/2017	4 pipettes	1	Pip
5	Comfortis	11/05/2016	6 tablets	1	Susie

tbl-appointments

ID	Date and Time	Pet Name
1	10/06/2017 14:00:00	Buster
2	10/06/2017 14:20:00	Bruno
3	10/06/2017 14:30:00	Fluff
4	10/06/2017 14:50:00	Rocky

qry-appointments

[tbl-owners].[Owner name]	[tbl-appointments].[Date and Time]	[tbl-appointments].[Pet Name]
Henry Baker	10/06/2017 14:20:00	Bruno
Naomi Finlay	10/06/2017 14:00:00	Buster
Naomi Finlay	10/06/2017 14:30:00	Fluff
Zarina Beruya	10/06/2017 14:50:00	Rocky

qry-medication

Medication	Date	Quantity	Dose	Owner name	Pet Name
Frontline	10/03/2017	6	1	Lucy Fowler	Tuppence
Drontal	09/03/2017	1	1	Naomi Finlay	Buster
Braveco	21/02/2017	1	1000 mg	John Needham	Lassie
Droncit	18/01/2017	4 pipettes	1	Kerena Pugh	Pip
Comfortis	11/05/2016	6 tablets	1	Margaret Hill	Susie

qry-vaccinations-by-pin

Pet Name	Vaccination type	Date
Blackie	cat influenza	08/03/2017
Pip	cat influenza	11/01/2017
Blackie	feline enteritis	08/03/2017
Pip	feline enteritis	11/01/2017

Evidence Checklist

OCR Level 2 Cambridge Technicals in IT
Unit 14: Creating mobile applications for business

LEARNER NAME:

For Pass have you: (as a minimum you have to show you can meet every pass criterion to complete the unit)	Where can your tutor find the evidence? Give page no(s)/digital timings, etc.
P1: Described the uses of mobile applications within business?	
P2: Planned a mobile application to meet business requirements?	
P3: Created a mobile application for business?	
P4: Gathered feedback on the mobile application?	

For Merit have you:	Where can your tutor find the evidence? Give page no(s)/digital timings, etc.
M1: Tested the functionality of the mobile application and updated it if required?	
M2: Made improvements based on feedback?	

For Distinction have you:	Where can your tutor find the evidence? Give page no(s)/digital timings, etc.
D1: Justified the improvements made to the mobile application?	

To find out more
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or call our Customer Contact Centre on **02476 851509**

Alternatively, you can email us on **vocational.qualifications@ocr.org.uk**