

Cambridge International Examinations

Cambridge International General Certificate of Secondary Education

INFORMATION AND COMMUNICATION TECHNOLOGY

0417/31

Paper 3 Practical Test B

May/June 2017

MARK SCHEME
Maximum Mark: 80

Published

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CAMBRIDGE International Examinations

[Turn over

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Question	Answer	Marks	
1	Open the file 1731san1.png in a suitable application. Resize the image so that it is 704 x 528 pixels. Save the image with the filename 1731san2.png	1	
	Image resized to 704 x 528 and saved with new filename 1731san2.png 1 mark		
2	Remove the right of the image to make it 230 pixels wide and 528 pixels high like this: Save the image with the filename 1731san3.png	2	
	Resized to 230 x 528 pixels 1 mark By removal of right 2/3 1 mark		
3	Display the contents of your <i>html_1731</i> folder showing the folder name, image dimensions, all file names, extensions and file sizes.		
	Folder created with 5 files copied, file sizes visible 1 mark		
4	Evaluate in your own words other changes that you could make to this image to make it more suitable for use in the web page.	4	
	(4 from) –1 mark each Colour depth can be changed From 16 bits/channel To 8 bits per channel Reduces storage space and image transmission timeby saving in gif formatby saving in jpg formatsave as jpeg with lower resolution 4 marks		

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description in your own words of the function of a hyperlink. Set this as style h2. To navigate from one place/page to another 1 mark	Question			Answer			Marks
Text shown in bold must be entered onto your web page. The texts in italics are instructions you must do. Replace text in <chevrons> with answers/image/candidate details as instructed: Using hyperlinks</chevrons>	5						
The texts in italics are instructions you must do. Replace text in <chevrons> with answers/image/candidate details as instructed: Using hyperlinks</chevrons>			•				
Replace text in <chevrons> with answers/image/candidate details as instructed: Using hyperlinks</chevrons>		Text show	n in bold must be	entered onto yo	our web page.		
### Place image saved in step 2 heres The function of a hyperlink:		Replace te	ext in <chevrons> \</chevrons>			details as	
Series S			Using hyperlin	nks			
Browser In browser 1 mark borders visible 1 mark 1 mark 2 sat In 2 mark 3 sat In 3 mark 4 sat 1 mark 2 sat In 2 mark 3 sat In 2 mark 3 sat In 3 mark 4 sat 1 mark 3 sat 1 mark 4 sat 1 mark 4 sat 1 mark 4 sat 1 mark 5 mark 2 mark 3 mark 4 mark 3 mark 4 mark 3 mark 4 mark 3 mark 4 mark 4 mark 4 mark 4 mark 4 mark 5 mark 4 mark 6 mark					set in style h1		
When used with a wobalta, absolute to question? Heres and relative file paths can be explained as: Service Ser					answer to question		
Browser In browser 1 mark borders visible 1 mark 1 mark 2 later as a hordered set with square busted set on sight busted by: www.ncmin.com/miles/square/ Browser In browser 1 mark 1 mark 2 later as a bordered by: https://www.ncmin.com/miles/square/ Browser In browser 1 mark 1 mark 2 later as a bordered by: https://www.ncmin.com/miles/square/ In mark 2 later as a busted by: https://www.ncmin.com/miles/square/ In mark 2 later as a busted by: https://www.ncmin.com/miles/square/https://www.ncmin.com/miles/square/							

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Question	Answer	Marks
7	Replace the text < Enter your answers to question 7 here > with a bulleted list in your own words of three or more items explaining the terms relative file path and absolute file path.	
	(3 from): 1 mark each Relative path points to current folder so relative links uploaded to server will work Absolute file path points to a location on a storage deviceso links uploaded to server unlikely to work (unless same structure) 3 marks	
8	Attach the stylesheet tab1731.css to your webpage	2
	tab1731.css attached 1 mark Head and body syntax correct 1 mark	

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Question		Answer		Marks	
9	A trainee has started to create a second stylesheet to be added to the web page. The stylesheet is not finished and contains a number of errors.				
	The web page and s most efficient meth	t st1731.css in a suitable software packa stylesheet must work in any browser and od. All colour codes are in hexadecimal ntains no html. The specifications for thi	d use the Make sure		
	Correct and comple	ete this stylesheet using the information	above.		
	Add your name, Ce the start of the style	ntre number and candidate number as a esheet.	comment at		
	followed by your ca	et in your 1731_html folder. Use the filend andidate number, e.g. st17319999.css eet to your webpage so that it has a high saved in step 8.			
	Comments table { }	/* Candidate details */ width:650px border:5px border-collapse:collapse padding-top:6px; padding-bottom:6px	1 mark 1 mark 1 mark 1 mark 1 mark		
	td{ } table,td {}	padding-left:4px; padding right:4px border:2px border:solid dark green (#005000) These 2 elements in joint section	1 mark 1 mark 1 mark 1 mark		
	h1 { }	color: #005000 font-family: Palatino, ,Times New Roman In speech marks ,Times ,serif	1 mark 1 mark 1 mark 1 mark 1 mark 1 mark		
	h2,h3,li { } font-size h2 { } h3 { } CSS syntax st1731????.css	font-size:36px font-size:16px one style line used for these 3 styles text-align:left text-align:center Must have; between properties attached below tab173.css	1 mark 1 mark 1 mark 1 mark 1 mark 1 mark		

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Question	Answer	Marks			
10	Open and examine the file 1731emp.csv in a spreadsheet package.				
	Save this file as a spreadsheet with the filename 1731emp and your candidate number, for example, 1731emp9999				
	Place your name, Centre number and candidate number, centre aligned in the header of the page.				
	On the left in the footer add the text Last edited on followed by today's date (automated) and time (automated).				
	Name and numbers in centre of header Last edited on followed by an automated <date> and <time> on the left in the footer 1 mark</time></date>				
11	Merge cells A1 to G1.	3			
	Format this cell so that: text is centre aligned with a white, 24 point, sans-serif font it has a dark green background colour.				
	Merge cells A1 to G1, centre aligned1 markWhite 24 point sans-serif font1 markDark green background1 mark				
12	Use cells A5 to B14 to create a named range called JC.	1			
	Correct named range 1 mark				
13	In cell D18 enter a function to look up the job description for this employee.				
	Lookup used 1 mark Correct relative lookup reference – A18 1 mark Named range JC 1 mark Correct return column 2 1 mark ,False for correct only / sorted data 1 mark				
14	In cell G18 use a formula to calculate the pay for this employee. This will look up the rate of pay from the Pay rates table and multiply it by the number of hours worked. This formula must include an absolute range, two relative references and must not include a named range.	5			
	Lookup used 1 mark Correct relative lookup reference – C18 (relative reference) 1 mark Range \$D\$5:\$E\$8 set as absolute reference 1 mark Correct return column 2 (,false optional) 1 mark *F18 (relative reference) 1 mark				
15	Replicate the formulae from steps 13 and 14 for all employee.	1			
	Formulae replicated correctly 1 mark				

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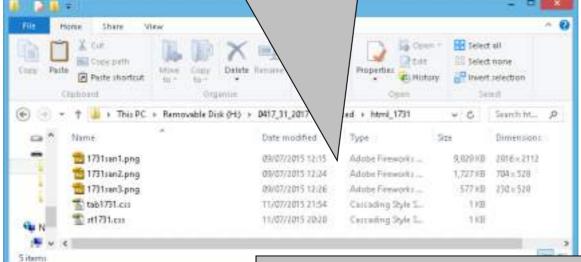
Question	Answer	Marks
16	In cell F60 enter a function to calculate the average number of hours worked by the employees.	1
	Display this to the nearest whole number.	
	=AVERAGE(F18:F58) displayed as an integer 1 mark	
17	In cell G61 use a function to calculate the total weekly wage.	1
	=SUM(G18:G58) 1 mark	
18	Apply appropriate formatting to your spreadsheet.	1
	Dollars applied with 2dp to all currency cells and appropriate cell alignment used 1 mark	
19	Save and print the spreadsheet showing the formulae. Make sure:	2
	it is in landscape orientation it fits on a single page wide the row and column headings are displayed the contents of all cells are fully visible.	
	Single landscape page, all visible 1 mark Row and column headings displayed 1 mark	
20	Print the spreadsheet showing the values. Make sure:	1
	it is in portrait orientation it fits on a single page the row and column headings are not displayed the contents of all cells are fully visible.	
	Fits single portrait page with no row or column headings, all visible 1 mark	
21	Hide rows 3–15 inclusive. Hide rows 60 and 61.	1
	Rows hidden from the printout 1 mark	
22	Extract only the employees where the job description includes developer and who work more or less than their contacted hours.	2
	Sort this data into ascending order of name.	
	Print only this extract showing the values. Make sure the:	
	printout fits on a single page contents of all cells are fully visible.	
	Job contains developer and contract hours <> hours worked 1 mark Sorted ascending on Name 1 mark	

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Evidence 1

Place image of folder sho

Screen shot Folder name, dimensions, extensions, file size 1 mark html_1731 1731san2.png resized to 704 x 528 1 mark 1731san3.png resized to 230 x 528 1 mark



Up to 2 methods from:

Colour depth can be changed...

...from 16 bits per channel...

...to 8 bits per channel

Saving in gif format

Saving in jpg format

Up to 3 from:

Reduces storage space required

Reduces image transmission time

Reduced image quality may not be suitable for web page

Max 4 marks

Place your evaluation here:

Evidence 2

The colour depth of the image cou

reduced 8 bits per channel. This would allow effect of this would be to reduce the storage

oe stored in a gif or jpeg format. The equired for the image and hence its

transmission time when downloaded on the internet. If it was saved in a jpeg format, the file size could be further reduced by reducing the image quality as you save the file.

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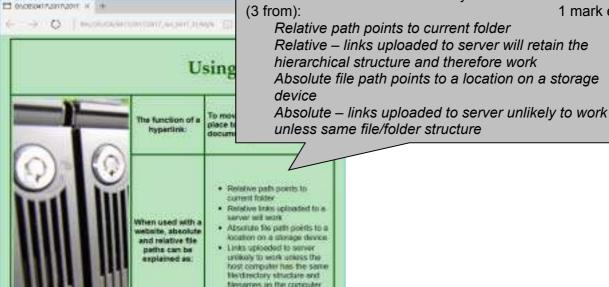
```
Comment
                                               /* Candidate details */
                                                                                   1 mark
                                   table
                                               width:650px
                                                                                   1 mark
                                               border-width:5px
                                                                                   1 mark
                                               border-collapse:collapse
                                                                                   1 mark
                                               padding-top:6px; padding-bottom:6px 1 mark
                                               padding-left:4px; padding-right:4px
                                                                                   1 mark
                                               border-width:2px
                                   td
                                                                                   1 mark
                                   table.td
                                               solid dark green e.g. #005000
                                                                                   1 mark
                                               one style line used for these 2 styles 1 mark
                                   h1
                                               color: #005000
                                                                                   1 mark
                                               font-family: Palatino
                                                                                   1 mark
Evidence 3
                                               ,Times New Roman ...
                                                                                   1 mark
                                               ...in speech marks
                                                                                   1 mark
Place screenshot of your stylesheet
                                               ,Times
                                                                                   1 mark
                                               .serif
                                                                                   1 mark
2 st17119999.cm - Notepad
                                               font-size:36px
                                                                                   1 mark
Ele Edit Format Yess Help
                                               font-size:16px
                                   h2,h3,li
                                                                                   1 mark
    A Candidate, ZZ999, 9999
                                               one style line used for these 3 styles 1 mark
                                   h2
                                               text-align:left
                                                                                   1 mark
table
           {width:650px;
                                               text-align:center
                                   h3
                                                                                   1 mark
            border:5px;
                                               list-style-type:square
                                                                                   1 mark
            border-collapse:co
                                   CSS syntax Must have; between properties
                                                                                   1 mark
td
           {border:2px;
            padding:6px 4px;}
table,td {border:solid #005000;}
h1
           {color:#005000;
            font-family:Palatino, "Times New Roman", Times, serif;
            font-size:36px}
h2,h3,li {font-size:16px}
h2
           {text-align:left}
h3
           {text-align:center}
li
           {list-style-type:square}
```

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Browser Screenshot in browser 1 mark Table 3 columns & 4 rows 1 mark borders visible 1 mark 1st row Using hyperlinks 1 mark as h1 1 mark 2nd row image 1731san3.png 1 mark Right 2/3 of image removed 1 mark Text The function of a hyperlink: 1 mark Correct answer in correct cell 1 mark e.g. Navigate from one place to another as h2 1 mark 3rd row Correct text in middle cell 1 mark 3+ answers as list 1 mark 4th row Website created by: & name & numbers 1 mark 2nd column Rows 2 - 4 set as style h3 1 mark (3 from): 1 mark each Relative path points to current folder

Evidence 4

Place screen shot evidence of your t



- Relative links uploaded to a
- location on a storage device
- protection would unless the tost computer has the sense life-timedary shucture and filengenes as the computer

Website created by: A Candidate, ZZ959, 9099

Stylesheet

Evidence 5

```
Place your html markup here
```

<!DOCTYPE html>

<html>

<head>

<link rel="stylesheet" href/</pre>

حىت 1731.css"> <link rel="stylesheet" href="st17319999.css">

<title>0417 June 2107 paper 31</title>

</head> <body>

<h1>Using hyperlinks</h1>

colspan=3

st1731????.css attached below tab1731.css

1 mark

1 mark

1 mark

1 mark

1st rowspan=3 1 mark

2nd row

+63

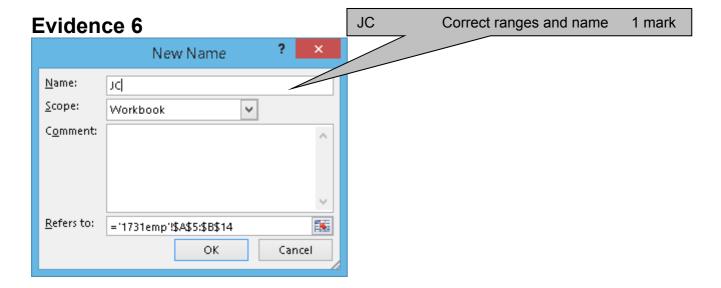
tab1731.css attached

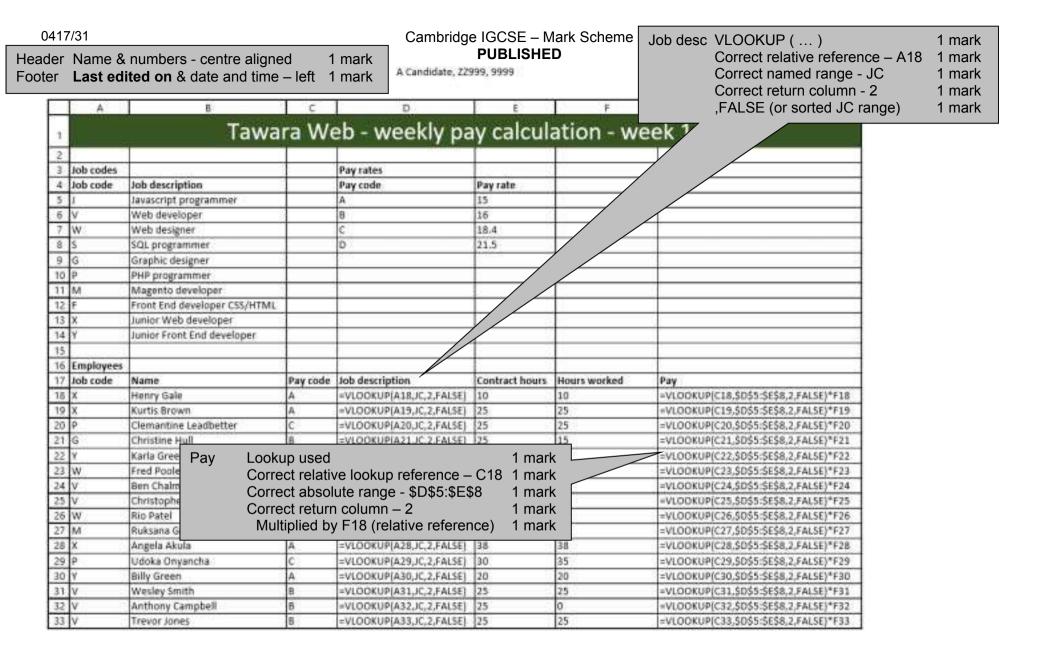
Head and body syntax correct

Appropriate alt text attributes 1 mark **Image**

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```
<h3>The function of a hyperlink:</h3>
    >To move the user from one place to another page/ document/
place on the page.</h2>
    <h3>When used with a website, absolute and relative file paths can
be explained as:</h3>
    Bulleted list visible (set )
                                                    1 mark
    <111> -
      Relative path points to current folder
      Relative links uploaded to a server will work
      Absolute file path points to a location on a storage
device
      Links uploaded to server unlikely to work unless the host
computer has the same file/directory structure and filenames as the
computer used to create the webpage.
     Row 4
                                        colspan=2
                                                          1 mark
   <h3>Website created by: A Candidate, ZZ999, 9999</h3>
    </body>
</html>
```





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May/June 2017

A Candidate, ZZ999, 9999

	Α	В	С	D	E	F	G
34	S	Jasmine Gunn	С	=VLOOKUP(A34,JC,2,FALSE)	30	30	=VLOOKUP(C34,\$D\$5:\$E\$8,2,FALSE)*F34
35	Υ	Brian Wells	A	=VLOOKUP(A35,JC,2,FALSE)	25	25	=VLOOKUP(C35,\$D\$5:\$E\$8,2,FALSE)*F35
36	γ	David Reid	A	=VLOOKUP(A36,JC,2,FALSE)	25	35	=VLOOKUP(C36,\$D\$5:\$E\$8,2,FALSE)*F36
37	v	John Vercoe	В	=VLOOKUP(A37,JC,2,FALSE)	25	25	=VLOOKUP(C37,\$D\$5:\$E\$8,2,FALSE)*F37
38	W	Lauren Hall	В	=VLOOKUP(A38,JC,2,FALSE)	25	35	=VLOOKUP(C38,\$D\$5:\$E\$8,2,FALSE)*F38
39	J	Chloe Rhodes	С	=VLOOKUP(A39,JC,2,FALSE)	30	30	=VLOOKUP(C39,\$D\$5:\$E\$8,2,FALSE)*F39
40	γ	Owen Williams	A	=VLOOKUP(A40,JC,2,FALSE)	25	25	=VLOOKUP(C40,\$D\$5:\$E\$8,2,FALSE)*F40
41	х	Lotte Charles	Α	=VLOOKUP(A41,JC,2,FALSE)	12	12	=VLOOKUP(C41,\$D\$5:\$E\$8,2,FALSE)*F41
42	٧	Jeannie Burke	В	=VLOOKUP(A42,JC,2,FALSE)	25	25	=VLOOKUP(C42,\$D\$5:\$E\$8,2,FALSE)*F42
43	W	Jimmy Lee	В	=VLOOKUP(A43,JC,2,FALSE)	12	0	=VLOOKUP(C43,\$D\$5:\$E\$8,2,FALSE)*F43
44	٧	Dawid Jones	В	=VLOOKUP(A44,JC,2,FALSE)	25	30	=VLOOKUP(C44,\$D\$5:\$E\$8,2,FALSE)*F44
45	٧	Li Sun Wu		AV/EDA 05/540 55	0)	4	=VLOOKUP(C45,\$D\$5:\$E\$8,2,FALSE)*F45
46	٧	CHARLOTTE WASSON	ell F60	AVERAGE(F18:F5	8)	1 mark	=VLOOKUP(C46,\$D\$5:\$E\$8,2,FALSE)*F46
47	٧	Joe Norfolk	cell G61	SUM(G18:G58)		1 mark	=VLOOKUP(C47,\$D\$5:\$E\$8,2,FALSE)*F47
48	v	Duncan Rydell	Р	-VEOOKOP(MHB,JC,Z,PMESE)	Λ.	Y	=VLOOKUP(C48,\$D\$5:\$E\$8,2,FALSE)*F48
49	٧	Ieuan Williams	В	=VLOOKUP(A49,JC,2,FALSE)	25		=VLOOKUP(C49,\$D\$5:\$E\$8,2,FALSE)*F49
50	٧	Linda Stuart	В	=VLOOKUP(A50,JC,2,FALSE)	25		=VLOOKUP(C50,\$D\$5:\$E\$8,2,FALSE)*F50
51	٧	Joanne Floyd	В	=VLOOKUP(A51,JC,2,FALSE)	25		=VLOOKUP(C51,\$D\$5:\$E\$8,2,FALSE)*F51
52	٧	Sam Smith	В	=VLOOKUP(A52,JC,2,FALSE)	20		=VLOOKUP(C52,\$D\$5:\$E\$8,2,FALSE)*F52
53	٧	Kate Smith	В	=VLOOKUP(A53,JC,2,FALSE)	25		=VLOOKUP(C53,\$D\$5:\$E\$8,2,FALSE)*F53
54	٧	Tony Thomson	В	=VLOOKUP(A54,JC,2,FALSE)	12		=VLOOKUP(C54,\$D\$5:\$E\$8,2,FALSE)*F54
55	Х	Dougle Ryder	A	=VLOOKUP(A55,JC,2,FALSE)	25		=VLOOKUP(C55,\$D\$5:\$E\$8,2,FALSE)*F55
56	٧	Wally Weston	В	=VLOOKUP(A56,JC,2,FALSE)	25	28	=VLOOKUP(C56,\$D\$5:\$E\$8,2,FALSE)*F56
57	J	Laura Macdonald	C	=VLOOKUP(A57,JC,2,FALSE)	30	30	=VLOOKUP(C57,\$D\$5:\$E\$8,2,FALSE)*F57
58	J	Jenna Hoy	С	=VLOOKUP(A58,JC,2,FALSE)	25	25	=VLOOKUP(C58,\$D\$5:\$E\$8,2,FALSE)*F58
59						1	
60					Average hours:	=AVERAGE(F18:F58)	
61					Weekly total:		=SUM(G18:G58)

Printout Single landscape page wide, fully visible 1 mark Row and Column headings displayed 1 mark Replication Both formulae 1 mark

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A Candidate, ZZ999, 9999

			dy pay calcula			
		\top				
ob codes			Pay rates			
ob code	Job description	$\sqrt{}$	Pay code	Pay rate		
	Javascript programmer		A	\$15.00		
ſ	Web developer		В	\$16.00		
N	Web designer	$\overline{}$	c	\$18.40		
5	SQL programmer			\$21.50		
3	Graphic designer					
)	PHP progra Top row	Marga	nd centre clien celle	A1 to C1	1 mark	
И	Magento de Top row		nd centre align cells		1 mark	
	Front End d		point sans-serif for	nt	1 mark	
(Junior Web	Dark gre	en background		1 mark	
1	Junior Front End developer	$\overline{}$	I		_	
Employees						
ob code	Name	Pay code	Job description	Contract hours	Hours worked	Pay
(Henry Gale	Α.	Junior Web developer	10	10	\$150.0
(Kurtis Brown	A	Junior Web developer	25	25	\$375.
)	Clemantine Leadbetter	c	PHP programmer	25	25	\$460.
3	Christine Hull	В	Graphic designer	25	15	\$240.
,	Karla Greenhalgh	A	Junior Front End developer	12	12	\$180.
N	Fred Pooley	В	Web designer	25	25	\$400.
ii .	Ben Chalmers	В	Web developer	12	12	\$192
ı'	Christopher Lewis	В	Web developer Web developer	25	25	\$400.
N	Rio Patel	В	Web designer	12	12	\$192.
M	Ruksana Gopaul	D	Magento developer	40	40	\$860.
VI	Angela Akula	A	Junior Web developer	38	38	\$570.
1	Udoka Onyancha	c		30	35	\$644.
r J	Billy Green	A	PHP programmer Junior Front End developer	20	20	\$300.
,	,					_
,	Wesley Smith	В	Web developer	25	25	\$400.
v .	Wally Weston	В	Web developer	25	28	\$448.
v .	Trevor Jones	B	Web developer	25	25	\$400.
	Jasmine Gunn	C	SQL programmer	30	30	\$552.
r	Brian Wells	A	Junior Front End developer	25	25	\$375.
/	Ieuan Williams	В	Web developer	25	10	\$160.
/	John Vercoe	В	Web developer	25	25	\$400.
W	Lauren Hall	В	Web designer	25	35	\$560.
	Chloe Rhodes	C	Javascript programmer	30	30	\$552.
Y	Owen Williams	A	Junior Front End developer	25	25	_
X.	Lotte Charles	A	Junior Web developer	12	12	\$180.
/	Jeannie Burke	В	Web developer	25	25	\$400.
N	Jimmy Lee	B.	Web designer	12	0	\$0.
ſ	Dawid Iones	IR.	Web developer	25	30	_
/	Format Pay	/ column	and pay rate colum	n \$ 2dp and	12	\$192.
/	Ch		urs displayed as inte	•	nark 25	\$400.
/	108	_	ait page, fully visible		25	\$400.
/	Joan				oork 30	\$480.
/	F # 10	umn head			nark 0	\$0.
/	Linda Stuart	В	Web developer	25	25	\$400.
/	Kate Smith	В	Web developer	25	5	\$80.
ſ	Sam Smith	В	Web developer	20	20	\$320.
1	Duncan Rydell	В	Web developer	<u>v</u> 5	30	\$480.
f	Tony Thomson	В	Web developer		12	\$192
(Dougie Ryder	A	Junior Web developer		25	\$375.
1	David Reid	A	Junior Front End developer		35	\$525.
	Laura Macdonald	С	Javascript programmer		30	\$552.
	Jenna Hoy	С	Javascript programmer	25	25	\$460.
				Average hours:	22	
				Weekly total:		\$15,101

A Candidate, ZZ999, 9999

\Box	A	8	C	D	E	F	- 6
1		Tawara	Web - weel	kly pay calcula	ation - w	eek 16	
5	-						
16	Employees	2.0	15 ac	mula voc	1 40	5. 38	
17	Job code	Name	Pay code	Job description	Contract hours	Hours worked	Pay
32	٧	Anthony Campbel	8	Web developer	25	0	\$0.00
36	¥	David Reid	A	Junior Front End developer	25	35	\$525.00
44	V	Dawid Jones	8	Web developer	25	30	\$480.00
		Duncan Rydell	8	Web developer	25	30	\$480.00
49	٧	leuan Williams	8	Web developer	25	10	\$160.0
	٧	Joanne Floyd	8	Web developer	25	30	\$480.0
53	V	Kate Smith	В	Web developer	25	5	\$80.0
56	v	Wally Weston	8	Web developer	25	28	\$448.0
			Hidden Extract	Rows 3-15 & (1 mark
	Extract Job contains developer and contract hours <> hours worked 1 m Sorted ascending on Name 1 m						