

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International Advanced Subsidiary and Advanced Level

MARK SCHEME for the May/June 2015 series

**9713 APPLIED INFORMATION & COMMUNICATION
TECHNOLOGY**

9713/02

Paper 1 (Practical Test A), maximum raw mark 120

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Evidence document

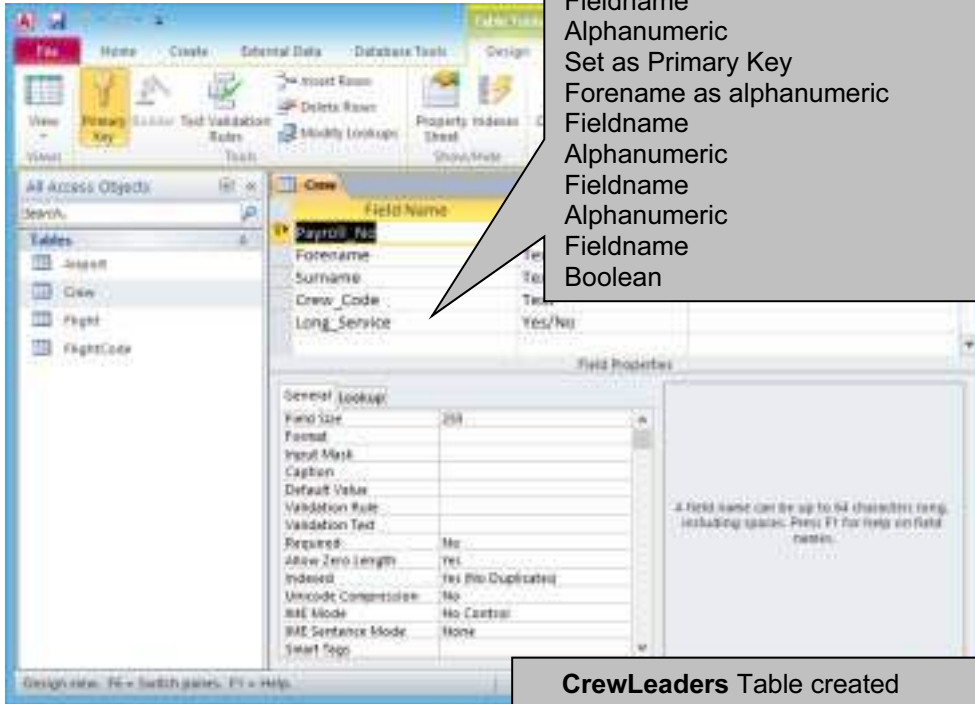
FlightCode Table created

Correct table name	1 mark
Flight_No	1 mark
Alphanumeric	1 mark
Set as Primary key	1 mark
D_Code as alphanumeric	1 mark
A_Code	1 mark
Alphanumeric	1 mark
Depart as alphanumeric	1 mark
Arrive	1 mark
Alphanumeric	1 mark

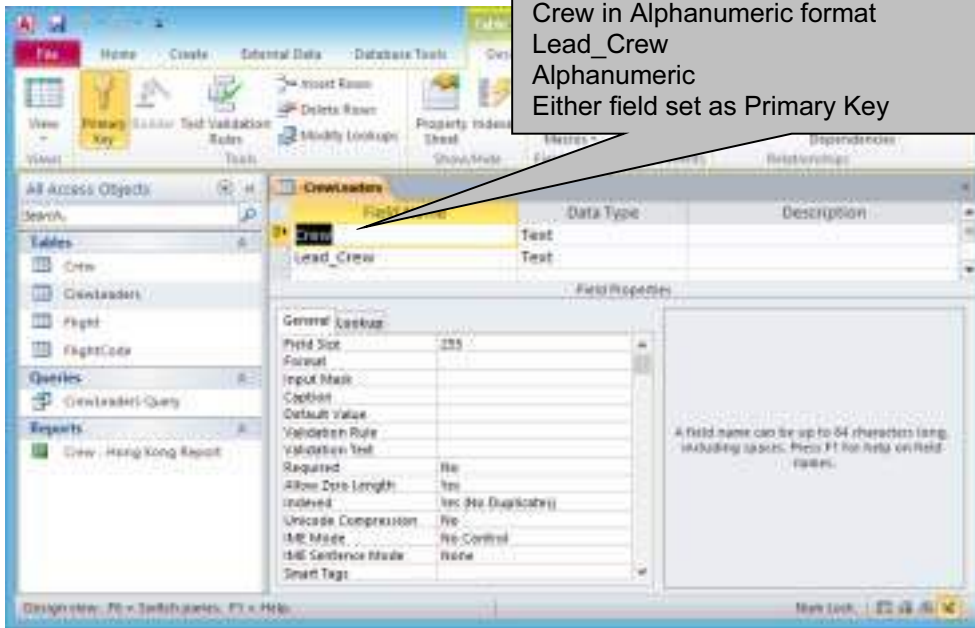
Flight Table created

Correct table name	1 mark
ID field	1 mark
...Set as Primary Key	1 mark
Depart_Date	1 mark
Date format	1 mark
Depart_Time	1 mark
Time format	1 mark
Arrive_Date in date format	1 mark
Arrive_Time in time format	1 mark
Fleet_No	1 mark
Numeric	1 mark
Crew in Alphanumeric format	1 mark

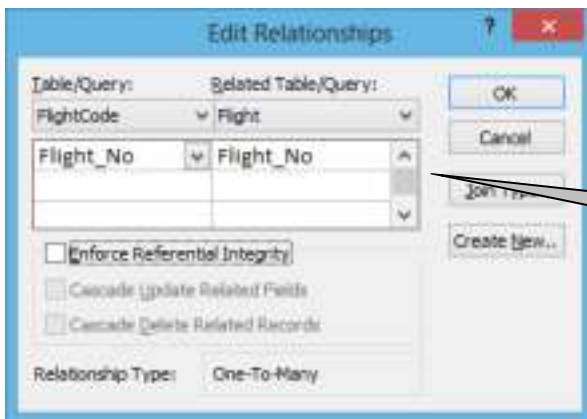
Evidence document



Crew Table created	
Correct table name	1 mark
Fieldname	1 mark
Alphanumeric	1 mark
Set as Primary Key	1 mark
Forename as alphanumeric	1 mark
Fieldname	1 mark
Alphanumeric	1 mark
Fieldname	1 mark
Alphanumeric	1 mark
Fieldname	1 mark
Boolean	1 mark

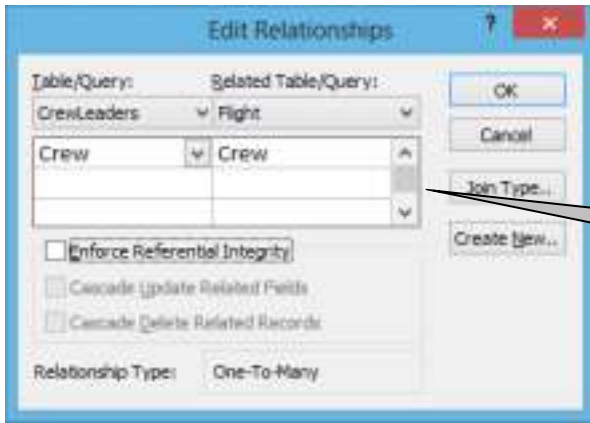


CrewLeaders Table created	
Correct table name	1 mark
Crew in Alphanumeric format	1 mark
Lead_Crew	1 mark
Alphanumeric	1 mark
Either field set as Primary Key	1 mark



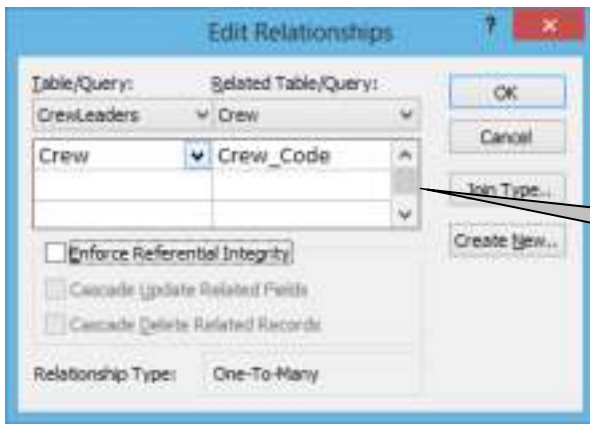
Correct fields	2 marks
...One-To-Many	1 mark

Evidence document



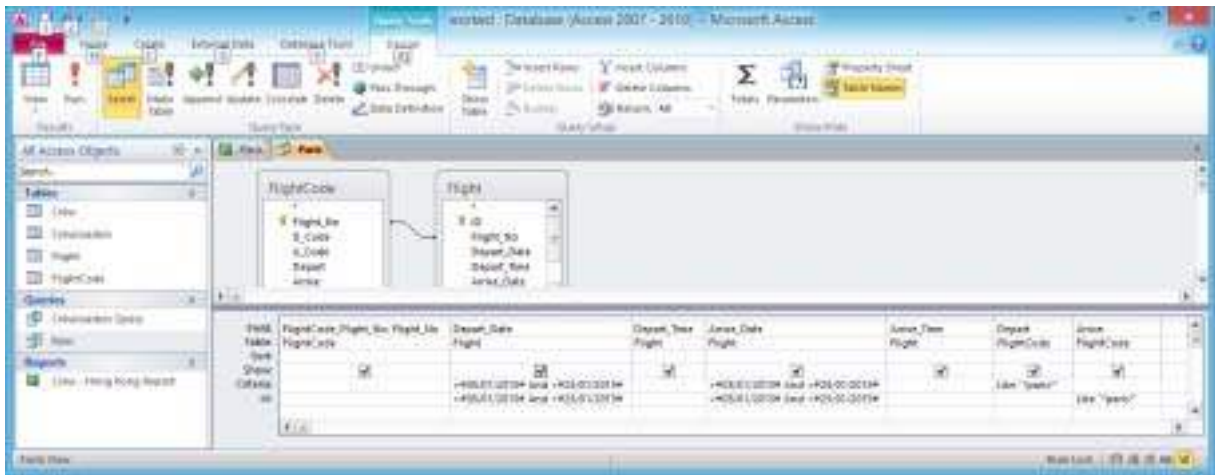
Correct fields
...One-To-Many

2 marks
1 mark



Correct fields
...One-To-Many

2 marks
1 mark



Search:
 Depart Paris **OR** Arrive Paris
AND
 >#05/01/2015#
AND
 <#25/01/2015#

3 marks
1 mark
1 mark
1 mark

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Header:
Appropriate title 1 mark

Flights arriving or departing from Paris Orly airport between 5th January 2015 and 25th January 2015

Flight	Departure Date	& Time	Arrival Date & Time	Depart/Arrive
TA015	16/01/2015	16:30	16/01/2015 17:45	London Heathrow/Paris Orly
TA016	16/01/2015	19:10	16/01/2015 20:25	Paris Orly London Heathrow

Format:
Both date fields dd/mm/yyyy 2 marks
Both Time fields hh:mm 2 marks

Search:
Correct 2 results 1 mark
Fields as shown 1 mark
Name & Candidate details in the footer 1 mark

Report by A Candidate, XX999, 9999

Header:
Appropriate title 1 mark

No of flights to and from each airport

D Code	AMS	ATL	CGK	DUB	HKG	LHR	MAD	ORY	PEK	SIN	SYD
AMS						6					
ATL						6					
CGK				6							
DUB	6		6			6			6	6	
HKG						6					6
LHR		6		12	6		3	3			
MAD						3					
ORY						3					
PEK				6							
SIN				6							
SYD					6						

Report created by A Candidate, XX999, 9999

Format:
Single portrait page & all fully visible 1 mark
Gridlines visible 1 mark

Crosstab/Pivot table:
D_Code as row headings 1 mark
A_Code as column headings 1 mark
Count as mathematical operation 1 mark
Correct values 1 mark
Name & Candidate details in the footer 1 mark

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Crew members who have flown to or from Hong Kong

Report prepared by: A Candidate, XX999, 9999

Header:

Appropriate title 1 mark
Report prepared by: & candidate details 1 mark

Crew_Code	Lead_Crew	Flight_No	A_Code	D_Code	Payroll_No	Forename	Surname
C	AC00060	TA029	HKG	LHR			

Search:
A_Code OR D_Code HKG 3 marks
Grouping level 1:
...Crew_Code 1 mark
...With Lead_Crew in group header 1 mark
Grouping level 2:
...Flight_No 1 mark
...With A_Code in group header 1 mark
...With D_Code in group header 1 mark
Report detail:
...Payroll_No, Forename & Surname only 1 mark

AC00086	Krystal	Read
AC00158	Kevin	White
AC00140	Stuart	Guttermann
AC00086	Krystal	Read
AC00060	Anthony	Campbell
AC00022	Billy	Green
AC00022	Billy	Green
AC00220	Justin	Brooklands
AC00220	Justin	Brooklands
AC00140	Stuart	Guttermann
AC00060	Anthony	Campbell
AC00022	Billy	Green
AC00060	Anthony	Campbell
AC00086	Krystal	Read
AC00140	Stuart	Guttermann
AC00158	Kevin	White
AC00220	Justin	Brooklands
AC00158	Kevin	White
AC00086	Krystal	Read
AC00158	Kevin	White
AC00140	Stuart	Guttermann
AC00220	Justin	Brooklands
AC00060	Anthony	Campbell
AC00022	Billy	Green
AC00022	Billy	Green
AC00060	Anthony	Campbell
AC00086	Krystal	Read
AC00140	Stuart	Guttermann
AC00220	Justin	Brooklands
AC00158	Kevin	White
AC00022	Billy	Green
AC00022	Billy	Green
AC00158	Kevin	White
AC00140	Stuart	Guttermann
AC00086	Krystal	Read
AC00060	Anthony	Campbell
AC00220	Justin	Brooklands

TA032	LHR	HKG
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All fields present & fully visible 1 mark
Orientation portrait 1 mark
Printed single page wide 1 mark
No crew split over 2 pages 1 mark

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Crew_Code	Lead_Crew	Flight_No	A_Code	D_Code	Payroll_No	Forename	Surname
		TA059	HKG	LHR	AC00158	Kevin	White
					AC00086	Krystal	Read
					AC00158	Kevin	White
					AC00220	Justin	Brooklands
					AC00220	Justin	Brooklands
					AC00158	Kevin	White
					AC00140	Stuart	Guttermann
					AC00086	Krystal	Read
					AC00220	Justin	Brooklands
					AC00060	Anthony	Campbell
					AC00022	Billy	Green
					AC00140	Stuart	Guttermann
					AC00060	Anthony	Campbell
					AC00060	Anthony	Campbell
					AC00060	Anthony	Campbell
					AC00086	Krystal	Read
					AC00022	Billy	Green
					AC00022	Billy	Green
					AC00140	Stuart	Guttermann
		TA062	LHR	HKG	AC00140	Stuart	Guttermann
					AC00060	Anthony	Campbell
					AC00086	Krystal	Read
					AC00158	Kevin	White
					AC00220	Justin	Brooklands
					AC00140	Stuart	Guttermann
					AC00220	Justin	Brooklands
					AC00022	Billy	Green
					AC00140	Stuart	Guttermann
					AC00220	Justin	Brooklands
					AC00086	Krystal	Read
					AC00060	Anthony	Campbell
					AC00022	Billy	Green
					AC00086	Krystal	Read
					AC00060	Anthony	Campbell
					AC00158	Kevin	White
					AC00022	Billy	Green
					AC00158	Kevin	White
E	AC00079	TA030	SYD	HKG	AC00058	Joe	Norfolk
					AC00021	Udoka	Onyancha
					AC00058	Joe	Norfolk
					AC00079	Jenna	Hoy
					AC00111	Wai Wai Hnin	Su
					AC00212	Sonja	Steinle
					AC00105	Min	Wang
					AC00079	Jenna	Hoy
					AC00105	Min	Wang
					AC00212	Sonja	Steinle
					AC00111	Wai Wai Hnin	Su
					AC00021	Udoka	Onyancha

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Crew_Code	Lead_Crew	Flight_No	A_Code	D_Code	Payroll_No	Forename	Surname
		TA061	HKG	SYD	AC00021	Udoka	Onyancha
					AC00212	Sonja	Steinle
					AC00021	Udoka	Onyancha
					AC00111	Wai Wai Hnin	Su
					AC00105	Min	Wang
					AC00079	Jenna	Hoy
					AC00212	Sonja	Steinle
					AC00058	Joe	Norfolk
					AC00111	Wai Wai Hnin	Su
					AC00105	Min	Wang
					AC00079	Jenna	Hoy
					AC00058	Joe	Norfolk
F	AC00231	TA031	HKG	SYD	AC00018	Angela	Akula
					AC00231	Kanya	Charoenkul
					AC00046	Jimmy	Lee
					AC00017	Ruksana	Gopaul
					AC00231	Kanya	Charoenkul
					AC00073	Laura	Macdonald
					AC00231	Kanya	Charoenkul
					AC00017	Ruksana	Gopaul
					AC00018	Angela	Akula
					AC00046	Jimmy	Lee
					AC00046	Jimmy	Lee
					AC00018	Angela	Akula
					AC00017	Ruksana	Gopaul
					AC00073	Laura	Macdonald
					AC00073	Laura	Macdonald
		TA060	SYD	HKG	AC00046	Jimmy	Lee
					AC00017	Ruksana	Gopaul
					AC00018	Angela	Akula
					AC00046	Jimmy	Lee
					AC00073	Laura	Macdonald
					AC00231	Kanya	Charoenkul
					AC00231	Kanya	Charoenkul
					AC00018	Angela	Akula
					AC00017	Ruksana	Gopaul
					AC00073	Laura	Macdonald
					AC00018	Angela	Akula
					AC00046	Jimmy	Lee
					AC00073	Laura	Macdonald
					AC00231	Kanya	Charoenkul
					AC00017	Ruksana	Gopaul
T	AC00154	TA030	SYD	HKG	AC00002	Kurtis	Brown
					AC00279	Davi	Jayne
					AC00167	Jimmy	O'Brien
					AC00154	Joshua	Bui
					AC00069	Dougie	Ryder
					AC00126	Vishnu	Patel

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Crew_Code	Lead_Crew	Flight_No	A_Code	D_Code	Payroll_No	Forename	Surname
U	AC00090	TA061	HKG	SYD			
					AC00004	Christine	Hull
					AC00089	Naomi	Murray
					AC00090	Bex	Young
					AC00104	Liu	Teo
					AC00128	Mei-Mei	Sun
					AC00156	Lois	Thomas

Evidence document

Search:
Using previous query as data set 1 mark

Grouping:
Payroll number (only unique field) 1 mark

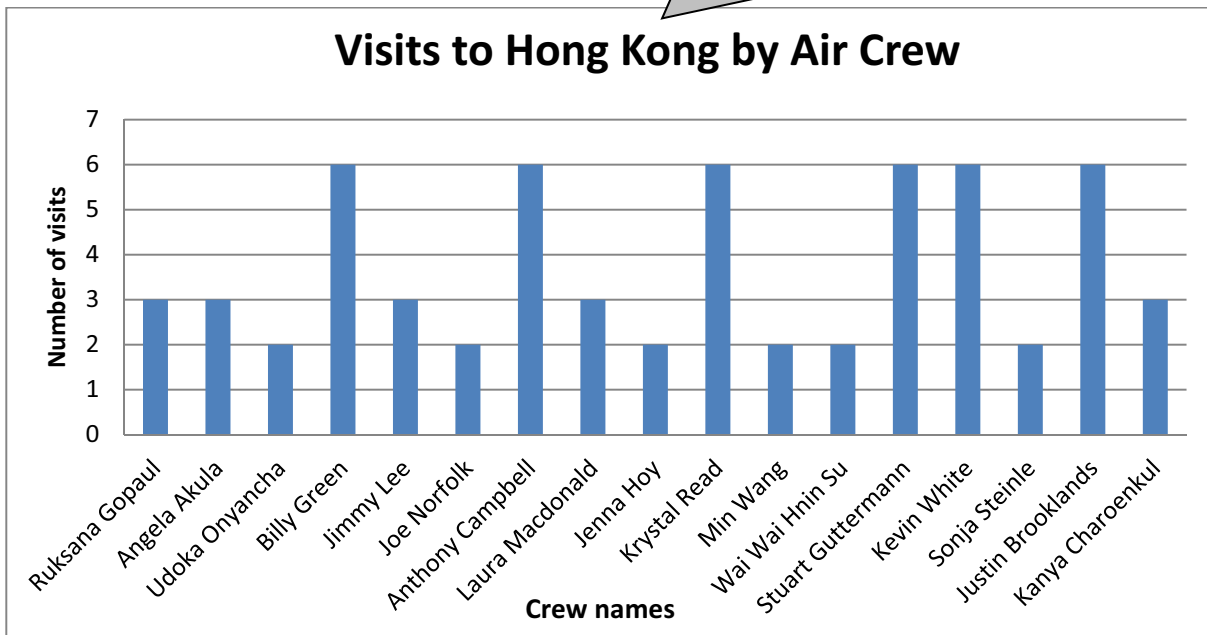
Calculation:
Count the number of duplicates in Payroll_No 1 mark
Divided by 2 2 marks

Correct values shown in tabular form 2 marks

Payroll_No	Forename	Surname	Number(Dupes)
AC00004	Christine	Hull	2
AC00089	Naomi	Murray	2
AC00090	Bex	Young	2
AC00104	Liu	Teo	2
AC00128	Mei-Mei	Sun	2
AC00156	Lois	Thomas	2

Evidence document

Chart:	
Appropriate chart type	1 mark
Appropriate title	1 mark
Correct values shown	1 mark
Both names fully visible	1 mark
Appropriate labels	1 mark



A Candidate, XX999, 9999



Long Haul flights between the 16th Jan 2015 and 25th Jan 2015

Flight number	Departure Date	Departure Time	Arrival Date	Arrival Time	Number of the aircraft in the fleet	Crew	Flight duration
TA029	42021	0.229166666666667	42021	0.729166666666667	1	C	=IF(B44=D44,E44-C44,("24:00"-C44+E44))
TA030	42021	0.895833333333333	42022	0.395833333333333	1	E	=IF(B45=D45,E45-C45,("24:00"-C45+E45))
TA004	42021	0.805555555555555	42022	0.142361111111111	2	H	=IF(B46=D46,E46-C46,("24:00"-C46+E46))
TA031	42022	0.541666666666667	42023	0.041666666666667	1	F	=IF(B47=D47,E47-C47,("24:00"-C47+E47))
TA005	42022	0.298611111111111	42022	0.635416666666667	2	J	=IF(B48=D48,E48-C48,("24:00"-C48+E48))
TA006	42022	0.753472222222222	42023	0.076388888888889	2	G	=IF(B57=D57,E57-C57,("24:00"-C57+E57))
TA032	42023	0.208333333333333	42023	0.708333333333333	1	C	=IF(B58=D58,E58-C58,("24:00"-C58+E58))
TA007	42023	0.25	42023	0.572916666666667	2	K	=IF(B59=D59,E59-C59,("24:00"-C59+E59))
TA039	42024	0.229166666666667	42024	0.729166666666667	1	C	=IF(B61=D61,E61-C61,("24:00"-C61+E61))
TA060	42024	0.895833333333333	42025	0.395833333333333	1	F	=IF(B65=D65,E65-C65,("24:00"-C65+E65))
TA033	42024	0.427083333333333	42024	0.763888888888889	4	R	=IF(B66=D66,E66-C66,("24:00"-C66+E66))
TA061	42025	0.541666666666667	42026	0.041666666666667	1	E	=IF(B67=D67,E67-C67,("24:00"-C67+E67))
TA034	42025	0.375	42025	0.753472222222222	4	R	=IF(B68=D68,E68-C68,("24:00"-C68+E68))
TA062	42026	0.208333333333333	42026	0.708333333333333	1	C	=IF(B69=D69,E69-C69,("24:00"-C69+E69))
TA018	42026	0.805555555555555	42027	0.142361111111111	2	L	=IF(B70=D70,E70-C70,("24:00"-C70+E70))
TA063	42026	0.427083333333333	42026	0.763888888888889	4	R	=IF(B73=D73,E73-C73,("24:00"-C73+E73))
TA064	42027	0.375	42027	0.753472222222222	4	R	=IF(B74=D74,E74-C74,("24:00"-C74+E74))
TA019	42027	0.298611111111111	42027	0.635416666666667	2	H	=IF(B75=D75,E75-C75,("24:00"-C75+E75))
TA020	42027	0.753472222222222	42028	0.076388888888889	2	M	=IF(B76=D76,E76-C76,("24:00"-C76+E76))
TA021	42028	0.25	42028	0.572916666666667	2	N	=IF(B77=D77,E77-C77,("24:00"-C77+E77))

Flight duration
 If statement
 B? = D?,
 E? – C?,
 "24:00"
 Speech marks around 24:00
 ...-C?
 ...+
 ...E44
 Printed on a single page & fully visible

1 mark
 1 mark
 1 mark
 1 mark
 1 mark
 1 mark
 1 mark

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A Candidate, XX999, 9999



Long Haul flights between the 16th Jan 2015 and 25th Jan 2015

- Name & Candidate details in the header 1 mark
- Appropriate title 1 mark
- includes Long Haul 1 mark
- includes correct 2 dates 1 mark
- Appropriate formatting for the title 1 mark
- Appropriate image selection 1 mark
- Appropriate position/aspect ratio 1 mark

Flight number	Departure Date	Departure Time	Arrival Date	Arrival Time	Number of the aircraft in the fleet	Crew	Flight duration
TA029	17/01/2015	05:30	17/01/2015	17:30	1	C	12:00
TA030	17/01/2015	21:30	18/01/2015	09:30	1	E	12:00
TA004	17/01/2015	19:20	18/01/2015	03:25	2	H	08:05
TA031	18/01/2015	13:00	19/01/2015	01:00	1	F	12:00
TA005	18/01/2015	07:10	18/01/2015	15:15	2	J	08:05
TA006	18/01/2015	18:05	19/01/2015	01:50	2	G	07:45
TA032	19/01/2015	05:00	19/01/2015	17:00	1	C	12:00
TA007	19/01/2015	06:00	19/01/2015	13:45	2	K	07:45
TA059	20/01/2015	05:30	20/01/2015	17:30	1	C	12:00
TA060	20/01/2015	21:30	21/01/2015	09:30	1	F	12:00
TA033	20/01/2015	10:15	20/01/2015	18:20	4	R	08:05
TA061	21/01/2015	13:00	22/01/2015	01:00	1	E	12:00
TA034	21/01/2015	09:00	21/01/2015	18:05	4	R	09:05
TA062	22/01/2015	05:00	22/01/2015	17:00	1	C	12:00
TA018	22/01/2015	19:20	23/01/2015	03:25	2	L	08:05
TA063	22/01/2015	10:15	22/01/2015	18:20	4	R	08:05
TA064	23/01/2015	09:00	23/01/2015	18:05	4	R	09:05
TA019	23/01/2015	07:30	23/01/2015	15:15	2	H	08:05
TA020	23/01/2015	18:05	24/01/2015	01:50	2	M	07:45
TA021	24/01/2015	06:00	24/01/2015	13:45	2	N	

- Flight duration >7:30 1 mark
- >16th January 1 mark
- <25th January 1 mark
- Sort 1 mark
- on Departure Date 1 mark
- ...Ascending 1 mark
- then: 1 mark
- on Duration 1 mark
- ...Descending 1 mark
- Single page & fully visible 1 mark