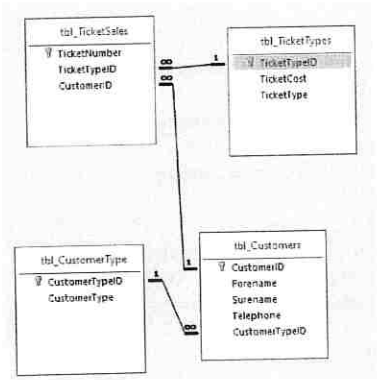
Part A

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4	Max. mark
Activity 1: ERD screenprint	**0**	**1-2**	**3-4**	**5-6**	**7-8**	**8**
	No rewardable material	ERD shows an attempt at normalisation with significant data redundancy. ERD has some correct relationships shown.	ERD shows that most data is correctly normalised with some data redundancy. ERD has some correct relationships and some correct relationship types.	ERD shows that most data is correctly normalised with minimal data redundancy. ERD has mostly correct relationships and mostly correct relationship types shown.	The ERD shows that the data is correctly normalised with no data redundancy. ERD has correct relationships and relationship types shown throughout.	
Activity 2: Table structure and validation	**0**	**1-2**	**3-4**	**5-6**	**7-8**	**8**
	No rewardable material	Uses some meaningful field and table names with some inconsistencies. The table structure identifies some primary and foreign key fields. The table structure has limited use of correct data types. Limited use of validation which may be inaccurate.	Uses meaningful field and table names with minor inconsistencies. The table structure identifies most primary and foreign key fields. The table structure has correct data types for most fields. Accurate validation rules for some of the fields that require validation.	Uses a recognised naming convention with minor inconsistencies for fields and tables. The table structure identifies all primary and most foreign key fields. The table structure has correct data types for most fields including matching primary and foreign key fields. Accurate validation rules for most of the fields that require validation.	Uses a recognised naming convention consistently for fields and tables. The table structure identifies all primary and foreign key fields. The table structure has correct data types for all fields. Accurate validation rules for all fields that require validation.	

Activity 1 – Database Relationship Screenprint, Band 4, Marks 8



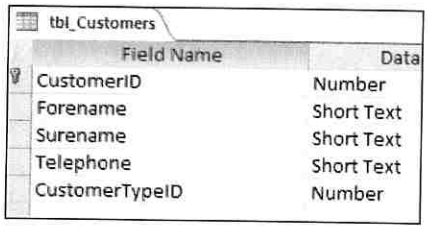
Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4	Max. mark
Activity 1: ERD screenprint	0	1-2	3-4	5-6	7-8	8
	No rewardable material	ERD shows an attempt at normalisation with significant data redundancy. ERD has some correct relationships shown.	ERD shows that most data is correctly normalised with some data redundancy. ERD has some correct relationships and some correct relationship types.	ERD shows that most data is correctly normalised with minimal data redundancy. ERD has mostly correct relationships and mostly correct relationship types shown.	The ERD shows that the data is correctly normalised with no data redundancy. ERD has correct relationships and relationship types shown throughout.	

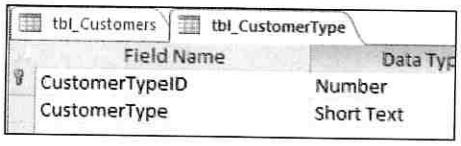
Trait	Band	Comments
1	4	• All the fields are in the correct tables. • All the tables have the correct primary keys • Surname has been given as Surename – meaning is clear
2	4	• Learner has the four correct tables, 3 correct relationship lines and 3 correct relationship types.
Band	4	**The learner has fully normalised the data set and has provided an accurate solution**
Mark	8	

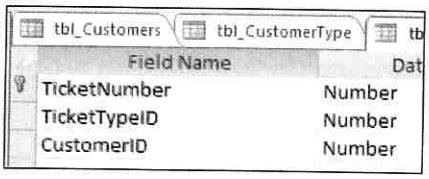
Activity 2 – Table Structures and Validation, Band 4, Marks 7

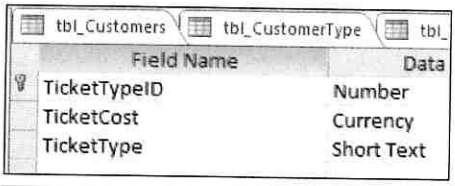
Table Structures

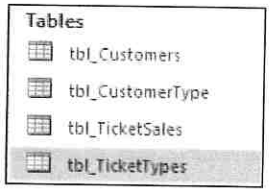
Add screenprints of each of your tables in design view showing the table names, field names and data types **ONLY**











Trait 1

- Standard naming convention has been used for the tables
- Key fields are consistent – ID all uppercase
- Other fields are consistent

Trait 2

- Learner has identified all primary and foreign keys from their database relationship screenprint in Activity 1

Trait 3

- Telephone is text
- TicketCost is currency
- Primary and foreign counterpart data types match
- All data types suitable

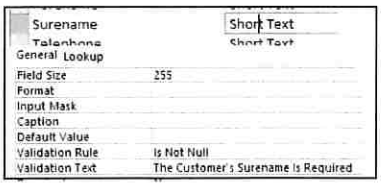
Activity 2: Table structure and validation	0	1-2	3-4	5-6	7-8
	No rewardable material	Uses some meaningful field and table names with some inconsistencies. The table structure identifies some primary and foreign key fields. The table structure has limited use of correct data types. Limited use of validation which may be inaccurate.	Uses meaningful field and table names with minor inconsistencies. The table structure identifies most primary and foreign key fields. The table structure has correct data types for most fields. Accurate validation rules for some of the fields that require validation.	Uses a recognised naming convention with minor inconsistencies for fields and tables. The table structure identifies all primary and most foreign key fields. The table structure has correct data types for most fields including matching primary and foreign key fields. Accurate validation rules for most of the fields that require validation.	Uses a recognised naming convention consistently for fields and tables. The table structure identifies all primary and foreign key fields. The table structure has correct data types for all fields. Accurate validation rules for all fields that require validation.

Trait	Band	Comments
1	4	• The learner has ensured that all four tables have been named using 'tbl' and that all four follow the same format: use of lower/uppercase and underscores • The keys use the same format ID – consistently capital ID. TicketNumber – classed as following the same pattern uppercase 'N' • All of the rest of the fields are consistent in the use of lower/uppercase
2	4	• All primary and foreign keys have been identified (matches their Activity 1)
3	4	• All data types are correct.
4	4	• The learner has clearly considered the implied requirements in the scenario and the requirements of the activity. All the validation is accurate and all the validation is appropriate. There is only one weakness in that 'Limit to List' has not been set to 'Yes' for the table lookup.
Band	**4**	**Overall there is enough evidence to award bottom of band 4. The weakness in the table lookup prevents the learner achieving full marks.**
Mark	**7**	

Trait 4 Validation

Presence Check

- Add a screenprint of ***one*** presence check



- Validation rule and validation text are suitable
- Surname is a suitable field to include a presence check – it is part of the requirements given in the activity

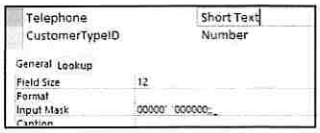
Length Check

- Add a screenprint of ***one*** length check

- Field size is suitable. This is one of the text fields mentioned in the requirements for this activity
- 12 is a reasonable length. The telephone numbers in the extract have 11 characters. However 12 is fine

Format Check

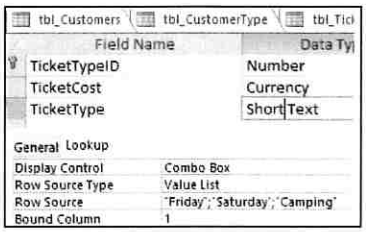
- Add a screenprint of ***one*** format check you have applied



- Input mask would ensure exactly 11 digits is the only format that would be accepted. Candidate has amended the format to include a space – this is fine, the test was to ensure the candidates would ensure exactly 11 digits **have** to be input in order to meet the required format

Value Lookup or Range Check

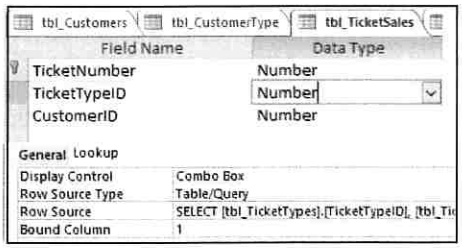
- Add a screenprint of ***one*** value or **one** range check you have applied



- Value lookup is appropriate – one of the requirements impled in the scenario. (see Lead Examiner comments for more information of this)

Table Lookup

- Add a screenprint of ***one*** table lookup you have applied (foreign key only)



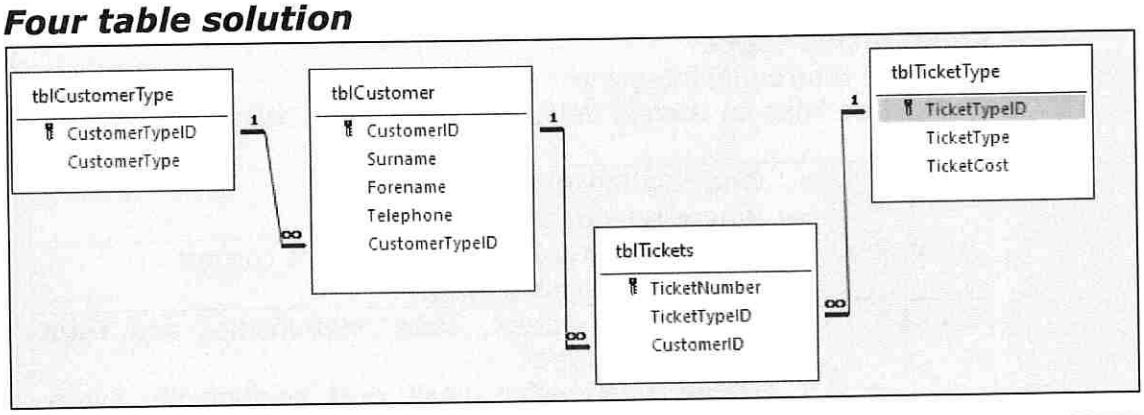
- Has been applied to a foreign key
- Does lookup to the correct table
- Weakness in that it does not have 'Limit to List' set to 'Yes'

Activity 1 – Database relationship screenprint

How examiners must approach marking this activity

Trait 1	• Candidates should be using ***all and only*** attributes given in data extract. • More than two attributes in wrong table class as significant data redundancy. Treat incorrect/missing primary keys as data redundancy. • Two attributes in wrong table/missing – Band 2 • One attribute in wrong table/missing – Band 3 • If truncated see how many missing from what you expect to see

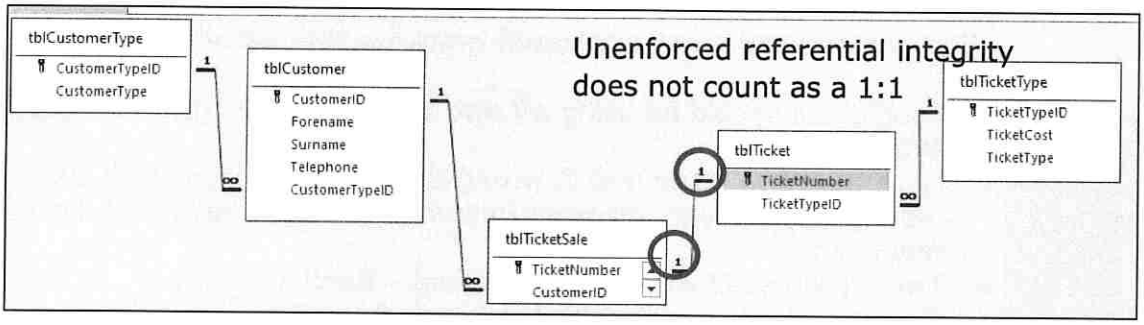
Four table solution



Trait 2	**Relationship lines** • Do not need to check the fields they link to, referential integrity or anything else, only the lines are important for this **Relationship types** • Check referential integrity • Must be links on correct fields and referential integrity present

Band 1	• One relationship line correct • Ignore relationship type
Band 2	• Minimum of two relationship lines correct • Ignore relationship type
Band 3	• Exactly four tables, three relationships and three relationship types present • Two out of three relationships and relationship types correct
Band 4	• Exactly four tables, three relationships and three relationship types present • All relationship lines and relationship types correct

Five table solution



Trait 2	**Relationship lines** • Do not need to check the fields they link to, referential integrity or anything else, only the lines are important for this **Relationship types** • Check referential integrity • Must be links on correct fields and referential integrity present

Band 1	• **One** relationship line correct • Ignore relationship type
Band 2	• Minimum of **two** relationship lines correct • Ignore relationship type
Band 3	• Exactly **five** tables, **four** relationships and **four** relationship types • **Three** relationship lines **and** relationship types correct
Band 4	• Exactly **five** tables, **four** relationships and **four** relationship types • **All** relationships and **all** relationship types correct • Accept 1:1 **only** for relationship type between Ticket and Ticket sale accept. • Unenforced referential integrity does not prove 1:1

Note foreign key evidence for activity 2 taken from this screenprint.

Activity 2 – Table Structures and Validation

How examiners must approach marking this activity

Trait 1	Look for naming conventions and whether fields are sensible • tbl for table • Fields should be consistent either have spaces or do not, camel case etc, so long as consistent. Fine for IDs to have no spaces even if other fields have spaces • If standard naming conventions are not used and inconsistencies with field names then cannot get higher than Band 2 for trait 1. • If standard naming conventions are not used for table but naming conventions consistent for fields then Band 3
Trait 2	Check against candidate's structure in activity 1 • Primary and foreign keys should match • No new foreign keys should be introduced • No activity 1 then check against ERD given in solution. • Band 3 can also be read as "all foreign and most primary"
Trait 3	Look at data types. Telephone: Short Text • TicketCost: Currency • Primary keys – any sensible • Foreign keys – much match primary (e.g. AutoNumber primary, Number foreign, Number primary, Number foreign etc.) • **Limited** means **more than two** different datatypes are incorrect.
Trait 4	**Scenario requirements** • 3 different types of customer (Regular, New, Guest of Organiser) • 3 different types of ticket (Friday, Saturday, Camping) • 3 different ticket prices (£39.00, £49.00, £88.00) **Activity/testing requirements** • a record will not save without the customer's surname being present **(presence check)** • a record will not save if the customer telephone number is not in the correct format **(format check using input mask or validation rule)** • a record will not save if the customer is assigned an invalid customer type **(table lookup on foreign key)** • a record will not save if the cost of a ticket is not one of the three permitted values (39 or 49 or 88) **(may be value lookup or validation rule)** • a record will not save if a ticket sale does not have a valid customer **(table lookup on foreign key)** • a record will not save if a ticket sale does not have a valid ticket type **(table lookup on foreign key).**

	Presence check	CustomerSurname or any appropriate (NOT primary keys)
	Length check	Any appropriate length check
	Value lookup	Customer Type, TicketType, TicketCost (TicketCost accept a validation rule in place of value lookup)
	Table lookup	Any foreign key that **looks up** to a primary key – not other way around
	Format check	Telephone – any that would work with 11 digit number
	Watch out for screenprints that do not show the actual field the validation is applied to. **Just acceptable for keys** Would need to see name of table and field name (could be written) **Just acceptable for non-keys** Would need to see the name of the field (could be written)	

Band 1	• At least 1 type of validation has been attempted – though may be inaccurate
Band 2	• 2 types of validation are accurate • Lookups shown in data sheet view, validation text missing, limit to list not set to yes, presence check on primary key – can still be classed as being accurate in this band • If lookups shown in datasheet view must be showing the drop-down items in the combo box
Band 3	• 3 types of validation are accurate, **appropriate** and include at least one lookup • Lookups shown in data sheet view validation text missing, limit to list not set to yes, presence check on primary key – can still be classed as being accurate in this band • If lookups shown in datasheet view must be showing the drop-down items in the combo box
Band 4	• All validation accurate and **appropriate** including • Value Lookup must be shown in design view and be on TicketCost, CustomerType or TicketType • Do not award full marks if limit to list not set to yes on table lookups • Do not award full marks if validation rules do not contain suitable validation text