

V23 Data Processing (Basic Course)



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| A. | Skills in competition – 10 points |
| В. | List of applications by general skill categories and by skill - 15 points |



Introduction

This project aims at preselecting candidates for the purpose of forming the French team for the 9th International Abilympics.

You will have 2 hours to complete it.

Description of the project

The project is to be completed using the relational DBMS (Database Management System) Microsoft Access 2010 and a preexisting database containing tables, relations and data.

You will create an app for processing French applications to the 9th International Abilympics organized by the association.

The various skills in competition are professional skills (pottery, cooking, computer programming, welding, jewelry...) that are evaluated during this competition. They are assembled in general skill categories (Craft, ICT, Services...).

Candidates can only register to a single skill in competition.

In this app, applications can be in 3 statuses: when a candidate registers, his application is "Pending". Then, after his application has been evaluated, it is either "Accepted" if the candidate possesses enough experience in the chosen skill, or "Refused".

The list of accepted applications will be used later in order to select members of the French team.



1. Main expected features

- ⇒ Processing skills per skill category,
- ⇒ Processing the list of candidates and the chosen skill,
- ⇒ Processing a candidate's form in which the chosen skill is displayed,
- ⇒ Listing the accepted applications per skill,
- ⇒ Editing the skills in competition and the related general skill category,
- ⇒ Editing the list of candidates per general skill category and the chosen skill.

III. Skills - Evaluation

Below are the skills you will use during the competition, as well as the matching scoring scale.

| 1. Editing field properties in existing tables | 10 points |
|--|------------|
| 2. Defining relationships and referential integrity rules between tables | 5 points |
| 3. Inputting and editing data | 15 points |
| 4. Creating a query | 10 points |
| 5. Creating forms | 35 points |
| 6. Creating a report | 25 points |
| Total | 100 points |

All these tasks will be described in the following chapter. Each completed task must be conform to the given instructions.



IV. Database to use

As a reminder, you will begin the project with a preexisting database (file) named "CandidateAdministration" to which you will add edits (tables, relationships and data) as well as inputs (data, queries, forms and reports).

It contains 3 tables (with data):

- 1. General skill categories: Craft, ICT, Services...
- 2. Skills in competition: Pottery, cooking, computer programming, welding, jewelry...
- 3. Candidates with the chosen skill.

The relationships between tables are the following:

- 1. One general skill category can contain from 0 to several skills,
- 2. One skill only belongs to a single general skill category,
- 3. One skill in competition can contain from 0 to several candidates,
- 4. One candidate can only register to a single skill in competition.

V. Tasks to perform

1. Tables and fields

The tables of the preexisting database are described in the following chapters A, B, and C. Each field (lines) and its properties (columns) are described in the chart pertaining to each table.

After opening the "CandidateAdministration" database, you must verify that the properties "data type" and "" of each field are conform to the description given for each table.

The columns "Constraint / field properties" and "Description" are for information only and do not require editing.



A. General skill categories - 2 points

Skill families containing the skills to be evaluated during the competition.

Name of the table: SkillCategory

Description of the table:

| Field name | Data type | Caption | Constraints / field properties | Description |
|------------|------------------------|-------------------|--------------------------------|-----------------------------------|
| pnlCat | Number Long integer | Id | Primary key | Id for the general skill category |
| tCat | Text (25) | Skill category | Not null, No duplicates | Name of the skill category |

B. Skills - 4 points

Skill contests to be evaluated during the competition.

Name of the table: Skill

| Field name | Data type | | Constraints / field properties | Description |
|------------|------------------------|-------------------|--|---------------------------|
| ptSki | Text (3) | Code | Primary key | Code of the skill |
| tSki | Text (80) | Skill | Not null, No duplicates | Name of the skill |
| nlCatSki | Number Long integer | Skill category | Foreign key, Not null, Indexed with duplicates. listingListing the sorted general skill categories. | General skill category |



C. Candidates - 6 points

Persons having presented an application to the 9th International Abilympics with the chosen skill and the status of the decision.

Name of the table: Candidate

| Field name | Data type | Caption | Constraints / field properties | Description |
|---------------|------------------------|------------|---|-----------------------------------|
| pnlCan | Number Long Integer | Id | Primary key | Id of the candidate |
| tTitleCan | Text (8) | Title | Default values = "Mr.", Not null, Indexed with duplicates. Combo box limited to "Mr." and "Ms." | Title of the candidate (Mr., Ms.) |
| tSurnameCan | Text (50) | Surname | Not null, Indexed with duplicates Edit the format in order to have all characters in capital letters. | Surname of the candidate |
| tFirstNameCan | Text (50) | First Name | Not null | First name of the candidate |
| tAddressCan | Text (70) | Address | | Address of the candidate |
| tPostcodeCan | Text (5) | Postcode | | Postcode of the candidate's city |
| tCityCan | Text (60) | City | | City of the candidate |



| Field name | Data type | Caption | Constraints / field properties | Description |
|------------------|-----------|-------------------|---|--|
| dBirthdayCan | Date | DoB | | Date of birth of the candidate |
| tMailCan | Text (50) | Mail | Not null | Email address of the candidate |
| dRegistrationCan | Date | Registration | Not null | Day of the candidate's registration |
| ptSkiCan | Text (3) | Chosen contest | Foreign key, Not null. Combo box displaying the sorted skill names. | Code (name) of the contest (skill in competition) chosen by the candidate |
| tDecisionApp | Text (8) | Decision | Not null, default value "Pending", Indexed with duplicates. Combo box limited to "Pending", "Accepted", and "Refused". | Decision / status of the application (Pending, Accepted, Refused) |

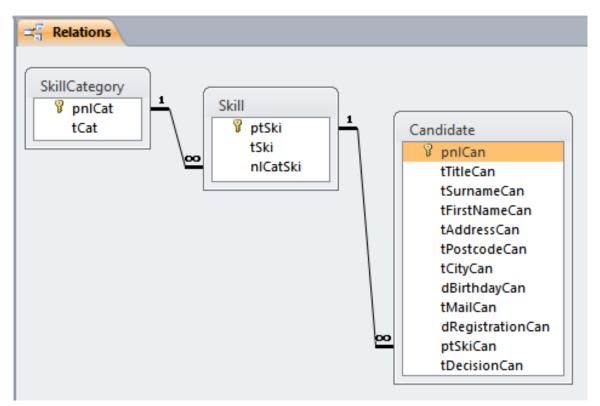


2. Relationships and referential integrity rules - 3 points

As a reminder, the relationships between the three tables are the following:

- 1. One general skill category can contain from 0 to several skills,
- 2. One skill only belongs to a single general skill category,
- 3. One skill in competition can contain from 0 to several candidates,
- 4. One candidate can only register to a single skill in competition.

Physical model:



You must edit the relationships between tables so that the physical data model is integrated and so that it corresponds with the 4 above constraints.

To do this, you will add the missing relationship with referential integrity and cascade update the related fields.



3. Data

You will find below the necessary information in order to edit and input data in the tables.

A. General skill categories - 3 points

Make the necessary edits so that the data in the table matches the following list:

| ld | | Name |
|----|---|----------|
| | 1 | Craft |
| | 2 | Food |
| | 3 | Industry |
| | 4 | ICT |
| | 5 | Services |



B. Candidates - 12 points

Input the following data in the "Candidate" table:

| Id | Title | Surname | First Name | Address | Post code | City | DoB | Mail | Registration | Chosen contest | Decision |
|-----|-------|---------|---------------|-----------------------|--------------|---------|------------|----------------------------|--------------|--|----------|
| 135 | Mr. | THOMAS | José | Route d'Aureille | 34290 | SERVIAN | 1972/05/04 | thomas.jose@laposte.net | 2015/01/12 | V47 - Jewelry | Accepted |
| 136 | Mr. | PERROT | Philippe | 82 Bd Rodin | 30100 | ALES | 1983/08/01 | perrot.philippe@wanadoo.fr | 2014/09/03 | V02 - Cabinet Making (Advanced course) | Refused |
| 137 | Mr. | BLIN | Laurent | 1 rue des 2 Frères | 89100 | SENS | 1965/03/28 | blin.laurent@laposte.net | 2015/01/14 | V06 - Floral Arrangement | Refused |



4. Queries

A. List of accepted applications by skill category - 10 points

In order to monitor applications to skill contests, you must create a query listing candidates whose application has been accepted. This list will contain, in columns, the chosen contest, the title, the surname, the first name and the email address of the candidate.

Each column will be resize so as to display the entirety of its content.

You will name this query "qAcceptedCandidateByContest", and its content will correspond to the following excerpt:



| Chosen contest | ▼ Title | - Surname - | First Name | Mail |
|--|------------|-------------|-----------------|---------------------------------|
| /01 - Basket Making | ▼ Monsieur | BARTHEL | Anthony | barthel.anthony@yahoo.fr |
| /01 - Basket Making | Madame | BEYNEY | Virginie | beyney.virginie@gard.chambagri. |
| /01 - Basket Making | Monsieur | CHAOUCH | Souhael | chaouch.souhael@voila.fr |
| /02 - Cabinet Making (Advanced course) | Madame | ARGELIES | Catherine | argelies.catherine@net-up.com |
| /02 - Cabinet Making (Advanced course) | Madame | BIDAUD | Aude | bidaud.aude@lemel.fr |
| /02 - Cabinet Making (Advanced course) | Madame | CATUSSE | Cecile | catusse.cecile@wanadoo.fr |
| /02 - Cabinet Making (Advanced course) | Monsieur | GAULLET | Sofiane | gaullet.sofiane@orange.fr |
| /02 - Cabinet Making (Advanced course) | Monsieur | GUINTINI | Nicolas | guintini.nicolas@laposte.net |
| /02 - Cabinet Making (Advanced course) | Monsieur | ORTIZ | Sébastien | ortiz.sebastien@aol.com |
| /02 - Cabinet Making (Advanced course) | Monsieur | PAWLOWSKI | Sylvain | pawlowski.sylvain@laposte.net |
| /02 - Cabinet Making (Advanced course) | Madame | VERDUN | Audrey | verdun.audrey@laposte.net |
| /02 - Cabinet Making (Advanced course) | Monsieur | VERNHES | Jérôme | vernhes.jerome@free.fr |
| /04 - Crochet Work | Monsieur | PETROV | Dimitri | petrov.dimitri@free.fr |
| /05 - Embroidery | Madame | BLANQUET | Joëlle | blanquet.joelle@tiscali.fr |
| /08 - Landscape Gardening (Group of 2) | Madame | COURAL | Pascale | coural.pascale@chevriot.com |
| /08 - Landscape Gardening (Group of 2) | Monsieur | GONZALEZ | Jean-Marc | gonzalez.jean-marc@laposte.net |
| /08 - Landscape Gardening (Group of 2) | Monsieur | SAINTPIERRE | Philippe | saintpierre.philippe@laposte.ne |
| /09 - Painting | Madame | BATISSON | Mariane | batisson.mariane@voila.fr |
| /09 - Painting | Madame | CASTELLARIN | Nathalie | castellarin.nathalie@hotmail.fr |
| /10 - Pottery | Monsieur | CARQUILLE | Michel | carquille.michel@experian.fr |
| /10 - Pottery | Monsieur | DELAMARRE | François-Pierre | delamarre.fp@laposte.net |
| /10 - Pottery | Monsieur | MICHAUD | Jean-Stéphane | michaud.js@free.fr |
| /11 - Silk Painting | Monsieur | BERNAD | Xavier | bernad.xavier@laposte.net |
| /11 - Silk Painting | Madame | BRUNO | Marie | bruno.marie@tiscali.fr |
| /11 - Silk Painting | Monsieur | TOUCAS | Nicolas | toucas.nicolas@wanadoo.fr |
| /12 - Waste Reuse | Madame | CAMOU | Sonia | camou.sonia@laposte.net |
| /12 - Waste Reuse | Monsieur | JULLIEN | Thierry | jullien.thierry@laposte.net |
| /13 - Wood Carving | Monsieur | DEVILLE | Olivier | deville.olivier@voila.fr |



5. Forms

A. List of candidates by skill contest - 10 points

You will create a new list form allowing the management of candidates per chosen contest (consulting, editing, adding and removing).

This list will be displayed as a data-sheet with the following columns: the chosen contest, the day of registration, the status of the application, the title, the surname, the first name and the email of the candidate. The columns will be sized so as to display their respective content.

Furthermore, it will be sorted by ascending alphabetical order by: chosen task, surname and first name.

You will name this form "fCandidateListBySkill".

Its content and its formatting will correspond to the following excerpt:



| Chosen contest | Registration - Decision | on 🔻 Title | → Surname | → First Name | → Mail |
|--|-------------------------|-------------|------------|--------------|---------------------------------|
| 15 - Cooking | 2015/02/02 Refused | Monsieur | ORAZZO | Marcel | orazzo.marcel@laposte.net |
| 15 - Cooking | 2015/01/27 Accepte | ed Monsieur | PEYRE | Thierry | peyre.thierry@gmail.com |
| 16 - Restaurant Service | 2015/02/17 Accepte | ed Madame | CARRIERE | Myriam | carriere.myriam@orange.fr |
| 16 - Restaurant Service | 2015/01/27 Pendin | g Madame | MILHORAT | Erica | milhorat.erica@laposte.net |
| 717 - Administration and Management of Network Systems | 2015/01/27 Accepte | d Monsieur | ALTIMANI | Christophe | altimani.christophe@laposte.net |
| 17 - Administration and Management of Network Systems | 2015/01/06 Accepte | ed Monsieur | FUSELLIER | Luc | fusellier.luc@wanado.fr |
| 17 - Administration and Management of Network Systems | 2015/01/14 Accepte | ed Monsieur | MERCERON | Ludovic | merceron.ludovic@caramail.com |
| 17 - Administration and Management of Network Systems | 2015/01/12 Pendin | g Monsieur | RAYNAUD | Patrice | raynaud.patrice@tele2.fr |
| 18 - Character Design | 2015/02/20 Pendin | g Madame | KERMARREC | Alice | kermarrec.alice@wanadoo.fr |
| 18 - Character Design | 2015/01/13 Accepte | ed Monsieur | LEGER | Philippe | leger.philippe@aol.com |
| 18 - Character Design | 2015/02/17 Pendin | g Monsieur | MONTES | David | montes.david@laposte.net |
| 19 - Computer Assembly | 2015/01/20 Refused | Monsieur | JORET | Patrick | joret.patrick@wanadoo.fr |
| 20 - Computer Programming | 2015/02/23 Pendin | g Monsieur | BOCENNO | Laurent | bocenno.laurent@laposte.net |
| 20 - Computer Programming | 2015/01/30 Pendin | g Monsieur | FALBET | Thierry | falbet.thierry@laposte.net |
| 21 - Creating Web Pages | 2015/01/12 Accepte | ed Monsieur | ODOARD | Patrice | odoard.patrice@wanadoo.fr |
| 21 - Creating Web Pages | 2015/02/02 Pendin | g Monsieur | TORDOIR | Luc | tordoir.luc@laposte.net |
| 22 - Data Processing (Advanced Course) | 2015/01/26 Accepte | ed Madame | BOISSEAU | Léa | boisseau.lea@sfr.fr |
| 22 - Data Processing (Advanced Course) | 2015/01/15 Accepte | ed Monsieur | CARVALHO | Cyrille | carvalho.cyrille@laposte.net |
| 23 - Data Processing (Basic Course) | 2015/02/25 Pendin | g Madame | VIGNES | Patricia | vignes.patricia@yahoo.fr |
| 23 - Data Processing (Basic Course) | 2015/01/23 Accepte | d Monsieur | VUCH | Christophe | vuch.christophe@gmail.com |
| 25 - E-Sport | 2015/01/15 Accepte | ed Monsieur | ARCHENAULT | Patrick | archenault.patrick@freesbee.fr |
| 25 - E-Sport | 2015/01/26 Accepte | ed Monsieur | ARNAL | Yannis | arnal.yannis@laposte.net |
| 25 - E-Sport | 2015/03/03 Accepte | ed Monsieur | BAYARD | Christophe | bayard.christophe@free.fr |
| 25 - E-Sport | 2015/02/19 Pendin | g Monsieur | BURLAND | Michel | burland.michel@gmail.com |
| 25 - E-Sport | 2015/01/30 Accepte | d Monsieur | CADALEN | Yves | cadalen.yves@gmail.com |
| 25 - E-Sport | 2015/02/25 Pendin | g Monsieur | GONSIOR | Dominique | gonsior.dominique@hotmail.com |
| 26 - Photography Outdoor | 2015/01/07 Accepte | ed Monsieur | HOT | Olivier | hot.olivier@qualinorm.com |
| 26 - Photography Outdoor | 2015/01/16 Accepte | ed Monsieur | VEZINE | Fernand | vezine.fernand@hotmail.com |
| 27 - Photography Studio | 2015/02/06 Accepte | ed Monsieur | BUMB | Valéry | bumb.valery@laposte.net |
| 27 - Photography Studio | 2015/01/05 Accepte | | PENA | Yves-Laurent | pena.ylt@free.fr |



B. Candidate sheet with chosen contest - 10 points

Create a single form allowing the management of each candidate.

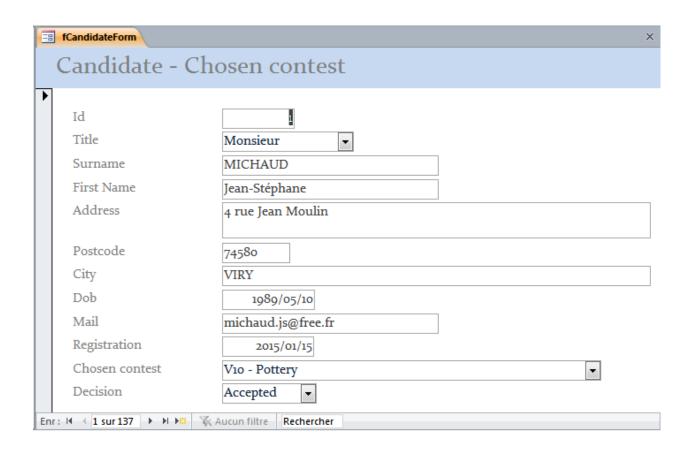
It will contain all of the information fields sorted by Id. The title "Candidate - Chosen contest" will be added to the top of the form.

Input zones will be sized so as to display the entirety of their content.

The form (at the top) title will be **Candidate - Chosen contest**.

You will name this form "fCandidateForm".

Its content and its formatting will be conform to the following model:





C. General skill categories management and related skills - 15 points

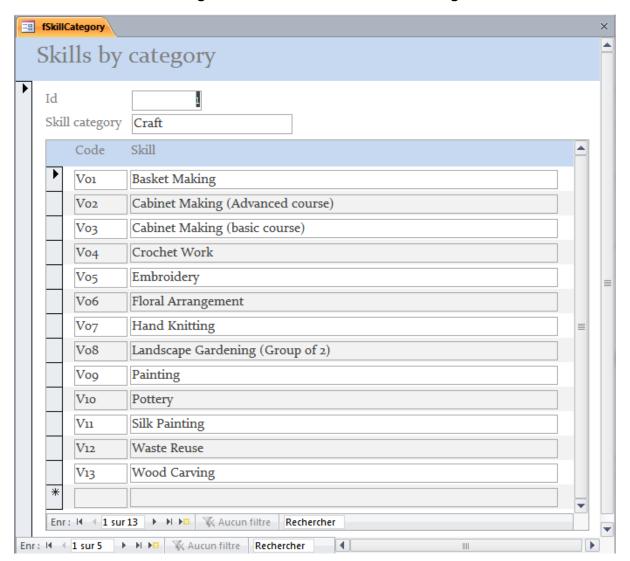
In order to simplify the inputting of general skill categories and of the related skills, you will create a form with sub--form.

The main form will be named "fSkillCategory" and will contain the Id and the name of each general skill category, sorted by ascending order.

The sub-form linked to the main form will be named "fSkillCategorySfSkill" and will display the complete list in tabular format of the skills for each general skill category, with the following columns: code and name of the general skill category.

The title (at the top) of the form will be **Skills by category**.

Its content and its formatting will be conform to the following model:





6.

A. Skills in competition - 10 points

You will create a listing snapshot listing -skills in competition.

The snapshot- will be displayed as a list in portrait layout, and will contain the following information:

- Skill code (sorted by),
- Name of the skill,
- Related general skill category.

Columns will be resized in order to display the entirety of their content.

The title (at the top) of the report will be **Skills in competition**.

You will name this report "rSkill" and make it conform to the following excerpt:





Skills in competition

| Code | Skill | Skill category |
|-----------------|--|----------------|
| Voi | Basket Making | Craft |
| Vo ₂ | Cabinet Making (Advanced course) | Craft |
| Vo ₃ | Cabinet Making (basic course) | Craft |
| Vo ₄ | Crochet Work | Craft |
| Vo ₅ | Embroidery | Craft |
| Vo6 | Floral Arrangement | Craft |
| Vo ₇ | Hand Knitting | Craft |
| Vo8 | Landscape Gardening (Group of 2) | Craft |
| Vog | Painting | Craft |
| V10 | Pottery | Craft |
| V11 | Silk Painting | Craft |
| V12 | Waste Reuse | Craft |
| V13 | Wood Carving | Craft |
| V14 | Bakery (cake) | Food |
| V15 | Cooking | Food |
| V16 | Restaurant Service | Food |
| V17 | Administration and Management of Network Systems | ICT |



B. List of applications by general skill categories and by skill - 15 points

You will create a report listing the status of applications sorted by name of general skill category and by skill code.

The report will be presented as a box in portrait layout and will contain the following information:

- Name of the general skill category (grouping by),
- Code of the skill (grouping by),
- The surname of the candidate (sorted by),
- The first name of the candidate (sorted by),
- The status of the application.

The title (at the top) of the report will be List of candidates by category and contest.

You will name this "this "rCandidateByCategoryAndSkill" and make it conform to the following excerpt:



| ist of candi | dates by | category and | contest | |
|----------------|-----------------|--------------|------------|----------|
| Skill category | Code | Surname | First Name | Decision |
| Craft | Voi | BARTHEL | Anthony | Accepted |
| | | BERAUD | Bruce | Refused |
| | | BEYNEY | Virginie | Accepted |
| | | CHAOUCH | Souhael | Accepted |
| Craft | Vo ₂ | ARGELIES | Catherine | Accepted |
| | | BIDAUD | Aude | Accepted |
| | | CATUSSE | Cecile | Accepted |
| | | GAULLET | Sofiane | Accepted |
| | | GUINTINI | Nicolas | Accepted |
| | | ORTIZ | Sébastien | Accepted |
| | | PAWLOWSKI | Sylvain | Accepted |
| | | PERROT | Philippe | Refused |
| | | VERDUN | Audrey | Accepted |
| | | VERNHES | Jérôme | Accepted |
| Craft | Vo ₃ | OFFRET | Jeanne | Pending |
| Craft | Vo ₄ | GROCHE | Dominique | Pending |
| | | MOREAU | Cyrille | Refused |
| | | | | |



Well done!

You're almost finished!

Please save your finished database on your workstation and on a USB flash drive that you will give to the judge.

CONGRATULATIONS!

Thank you for your participation!