

GnuCOBOL Tui Tools Collection: 71 "CRUDE Application" Create Read Update Delete

"CRUDE" applications allow you to create, read, update, and delete indexed file records with a primary key that never allows duplicates and with or without alternative keys that may or may not have duplicates. They can be a master record (customer records, suppliers, accounts, materials ...) or of any other type, such as transactional (accounting records, invoices issued, purchase orders, stock movements, and so on). AFAIK, this is the first available example of a CRUDE application on indexed files in GnuCOBOL.

In this example, the CRUDE application manage an INDEXED FILE with a primary key and 3 alternative keys that do not allow duplicate values.

The primary key in this application is a simple 9-digit numerator from 1 onwards without any meaning.

This way, you can have alternate keys that can be changed without being forced to erase the record and rewrite it as it is mandatory for primary keys that can not be modified.

This TUI tool is also a fully functional real application.
This sample CRUDE tool manages a FILE with business data master data.

It is possible to duplicate these programs, keeping the general logic for managing other customer, supplier, accounts, materials etc or other transactional file files (accounting records, inventory movements, etc.). These files have a similar structure, that is, a primary key with a simple counter and secondary keys according to different needs (codes, descriptions ...).

The application is designed to allow multiple companies environment..
In the example we handle more ANAGExxx.DAT files with three alternative keys where "xxx" is a code associated with a certain company code.

This application uses other TUI TOOLS such as MENU, BOX, BOXMEX, DATEPICKER, BUTTONS, YESNO.

The CRUDE application consists of four programs
GC71CRUDEMAIN that displays a cover and manages menus.
GC71CRUDESEL that allows multi-company and multi-file management.
GC71CRUDEBRO that allows viewing and browsing of each of the files with subsequent link to records creation, edit and delete operations.
GC71CRUDEECUD performing both creating and editing and deleting records

The application starts with a GC71CRUDEMAIN Menu that has two options only: CREATE and READ (Browse).
The Browse program allows selecting a record to be updated or deleted, or creating a new record.

GC71CRUDEMAIN allows the user to select the Browse.o Create function.
In both cases, the GC71CRUDESEL program is called, which allows you to select the file (that is, the company code) and then in turn calls GC71CRUDEBRO to have the records list or the GC71CRUDEECUD program for creating a new record.

GC71CRUDEBRO lists the records already in the file. Lets you scroll vertically and horizontally from the file and select a record that is managed in edit or delete from the same program GC71CRUDEECUD.

GC71CRUDEECUD allows you to create a new record but also edit and delete it.
It is an example of how user input can be managed with various types of fields, controls, and datepickers. It contains examples of entering amounts with integer and decimal digits and also with a negative sign. It also contains the example of help on fields using the TUI GC74HELPPVIEW tool.

The general operating schema of the CRUDE application is as follows.

GnuCOBOL C.R.U.DE APPLICATION (CREATE READ UPDATE DELETE)

```

      MENU
      .--- BROWSE Func= R ---.
GC71CRUDEMAIN --+
      |
      | MENU
      |
      '--- CREATE Func= C ---'

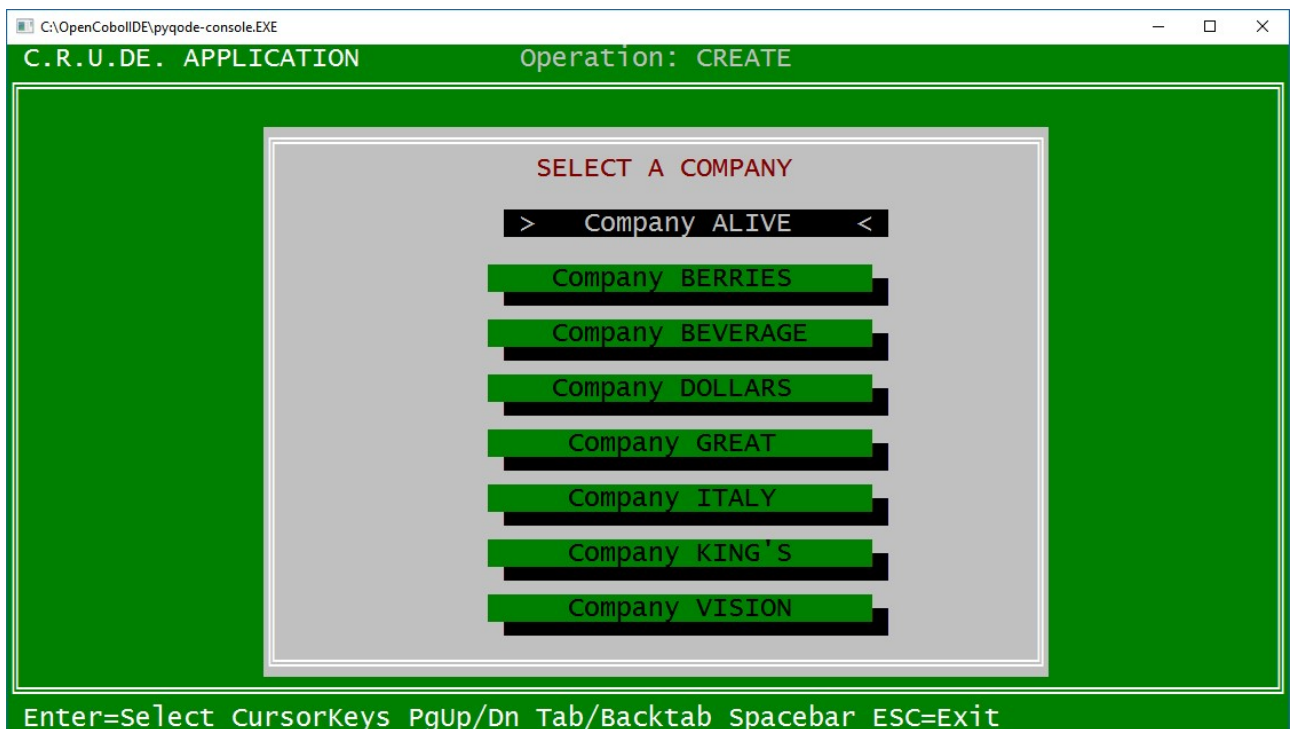
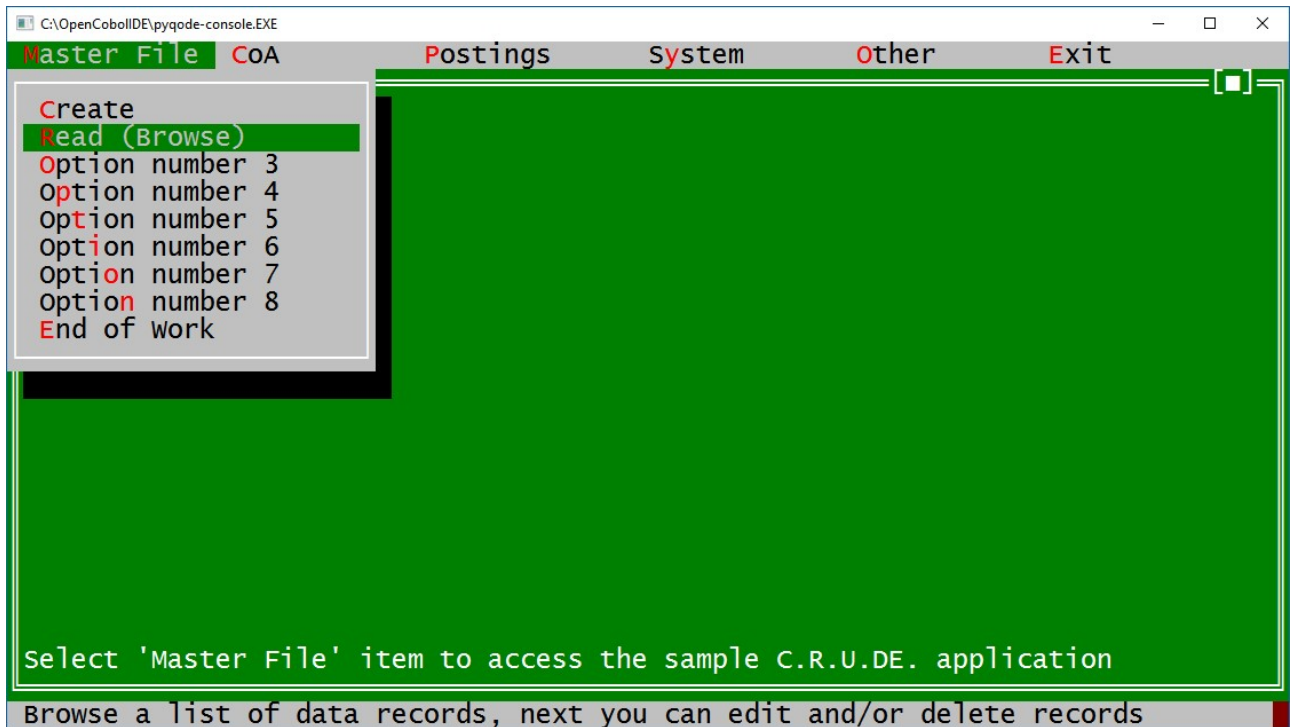
      (browse)
      .--> GC71CRUDEBRO ---. <--.
      |
      | GC71CRUDESEL --| C/U/D |return
      |
      '--> GC71CRUDEUD <--' ---'
      (create/update/delete)
```

```
C:\OpenCobolIDE\pyqode-console.EXE
User: DILO
Time 22:29:10

GnuCOBOL 2.0 TUI TOOLS COLLECTION

🇮🇹 C.R.U.DE. APPLICATION - CREATE READ UPDATE DELETE 🇮🇹
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Screen of 025 x 080 - Press a key to Enter, ESCAPE to EXIT.
```



List of files Record.

```
C:\OpenCobolIDE\pyqode-console.exe
C.R.U.D.E. APPLICATION (File: ANAGEALI.DAT sorted by: NAME)
NUM. Name Code Fiscal Code VAT code M
1 00000000000000000000000000000000 000 0
2 10101010101010101010101010101010 101 1
3 11111111111111111111111111111111 111 1
4 20202020202020202020202020202020 202
5 22222222222222222222222222222222 222 1
6 33333333333333333333333333333333 333 3
7 44444444444444444444444444444444 444 4
8 55555555555555555555555555555555 555 5
9 66666666666666666666666666666666 666 7
10 77777777777777777777777777777777 777 7
11 88888888888888888888888888888888 888 8
12 99999999999999999999999999999999 999 9
13 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 333 3
14 AGENTE ROSSI 888 8
15 AMBER A ppp 4
16 AMERIGO VESPUCCI 000 0
17 BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB bbb
18 BEST PERFORMER
19 BROWN JOHN VVVVVVVVVVVVVVVVVVVVVV
20 CVCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
21 DAVID ROSS
22 FIRST FFFFFFFF FISCAL CODE VAT CODE
F1=Help Enter ESC CursorKeys PgUp/Dn Home Ctrl-C/E/D/R Ctrl-F1/2/3 Scroll:005
```

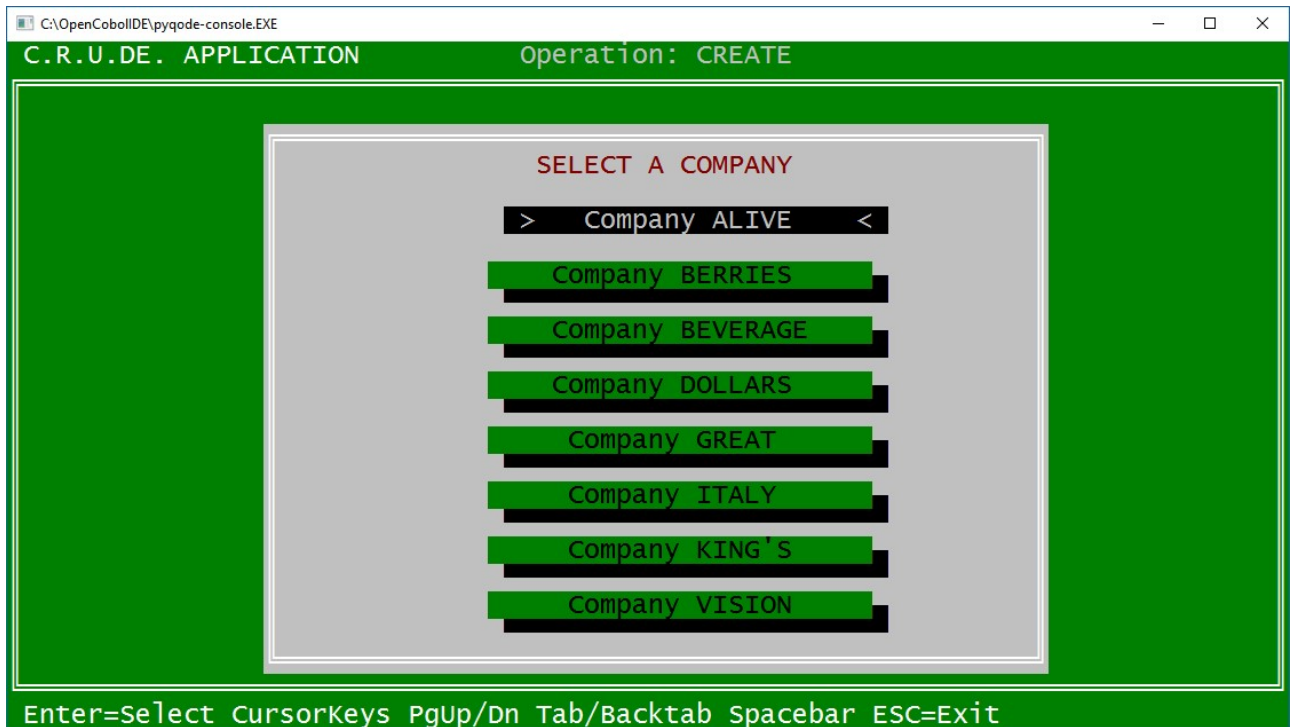
If you hit "enter" on a record you get the record in edit mode.
If you are on a date field you can type F4 Datepicker ...

[illegible]

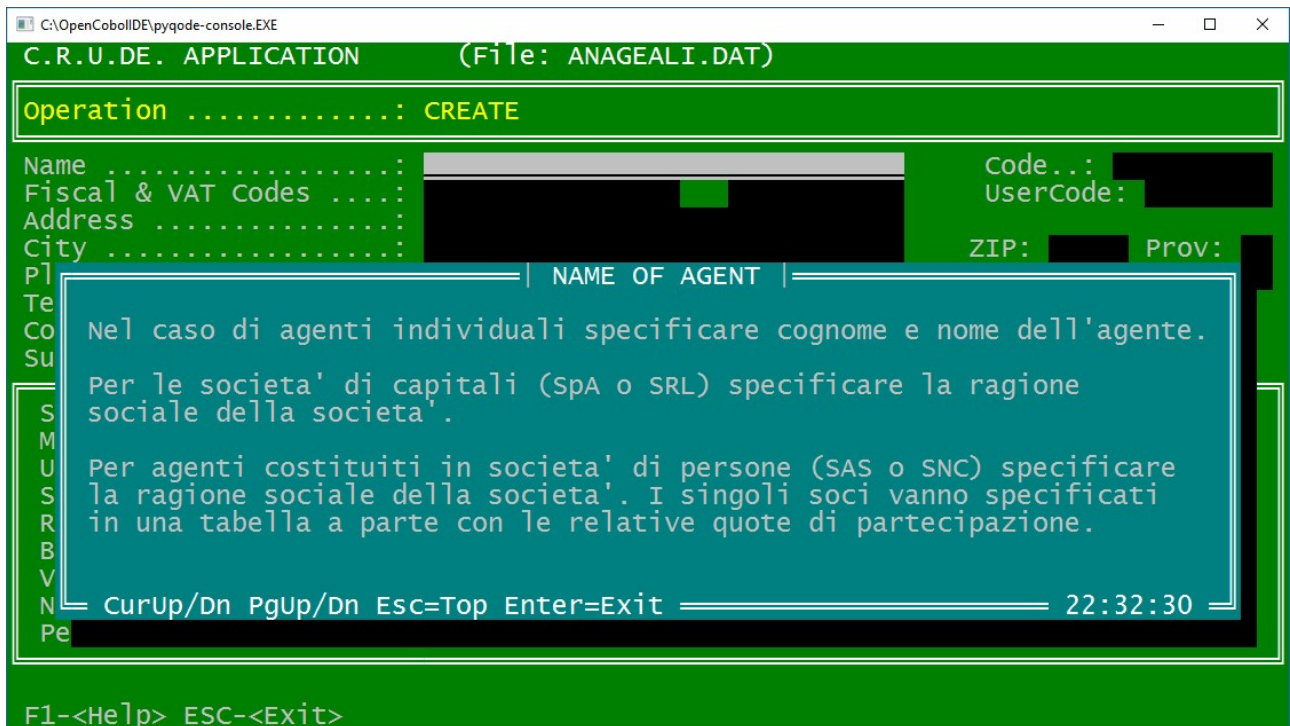
Type enter on each field and after the last field you have enabled F12 Execute

[illegible]

The screenshot shows the OpenCobolIDE application window. The title bar reads "C:\OpenCobolIDE\pyqode-console.EXE". The menu bar includes "Master File", "CoA", "Postings", "System", "Other", and "Exit". The "Master File" menu is open, displaying a list of options: "Create", "Read (Browse)", "Option number 3", "Option number 4", "Option number 5", "Option number 6", "Option number 7", "Option number 8", and "End of Work". The main window area has a green background with the text "Select 'Master File' item to access the sample C.R.U.D.E. application". The status bar at the bottom contains the text "Create a data record on Master File".



If you hit F1 Help you get a scrolling help message on that field



C:\OpenCobolIDE\pyqode-console.EXE

C.R.U.DE. APPLICATION (File: ANAGEALI.DAT)

Operation: CREATE

Name	ZNAME	Code...: ZCODE
Fiscal & VAT Codes	ZFUISCAL	UserCode:
Address		
City		ZIP:
Place of birth		Prov:
Tel.home & mobile		Prov:
Contract Type		il:
Subject Type		ax:

CONFIRM TO CREATE ?

YES NO

Start Date (yyyymmdd)		TP:
Monthly payment		ion
Union retention		0,00
Sub Agents (Y)	VAT %: 10	Invoices aut.numb.(Y)
Reg.code CCIAA		Sex M/F
Business Register Code:		Company Register code:
Vendor Code		Capital Stock
Netw & Sales Area		0
Perc.Commission		Cost Center
		P.O. Box
		Set.Cont:
		Insur:
		0,00

F1-<Help> ESC-<Exit> F12= Execute CREATE

C:\OpenCobolIDE\pyqode-console.EXE

C.R.U.DE. APPLICATION (File: ANAGEALI.DAT)

Operation: CREATE

Name	ZNAME	Code...: ZCODE
Fiscal & VAT Codes	ZFUISCAL	UserCode:
Address		
City		ZIP:
Place of birth		Prov:
Tel.home & mobile		Prov:
Contract Type		il:
Subject Type		Fax:

-- =No 0 o = --

REC.ID 00081 ADDED


< OK >

Start Date (yyyymmdd)		TP:
Monthly payment		tribution
Union retention		0,00
Sub Agents (Y)	< OK >	Invoices aut.numb.(Y)
Reg.code CCIAA		Sex M/F
Business Register Code:		Company Register code:
Vendor Code		Capital Stock
Netw & Sales Area		0
Perc.Commission		Cost Center
		P.O. Box
		Set.Cont:
		Insur:
		0,00

F1-<Help> ESC-<Exit>


```
C:\OpenCobolIDE\pyqode-console.EXE

...OK ! End of C.R.U.DE. Application.
...GnuCOBOL TUI TOOLS COLLECTION (DILO).
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Process terminated with exit code 0
Press ENTER to close this window...
```