



Records





What is Record Structure?

Records are **customised data types** created by the programmer.

They can contain **several variables** which can be of **different data types**.

When you create a record structure, you are essentially creating a database.





Data Types

Up until now, you have only used the **base types** provided by the programming language.

- Character
- Integer
- Real
- Boolean

And the structured types also provided by the programming language.

- Array
- String

STRING is really just an ARRAY of CHARACTERS



Record Structure

A record structure is created by firstly defining a name and the 'fields' required.

RECORD *UserDetails* **IS**

{STRING Firstname, STRING Surname, INTEGER Age}

This record structure contains three variables (fields)



Record Structure

Now that the new custom type has been defined, an array can be declared that uses this new type as an **array of records**.

```
DECLARE UserRecord(10) As Userdetails
```



Record Structure

```
DECLARE UserRecord(10) As Userdetails
```

Record values can now be initialised or updated as a complete record

```
SET UserRecord[1] TO {"Harry", "Jones", 37}
```

Or by referring to individual values

```
SET UserRecord[1].Firstname TO "Harry"
```

```
SET UserRecord[1].Surname TO "Jones"
```

```
SET UserRecord[1].Age TO 37
```