MATLAB - THE SWITCH STATEMENT

A switch block conditionally executes one set of statements from several choices. Each choice is covered by a case statement.

An evaluated switch_expression is a scalar or string.

An evaluated case_expression is a scalar, a string or a cell array of scalars or strings.

The switch block tests each case until one of the cases is true. A case is true when —

- For numbers, **eq**$case_expression, switch_expression$.

- For strings, **strcmp**$case_expression, switch_expression$.

- For objects that support the **eq**$case_expression, switch_expression$.

- For a cell array case_expression, at least one of the elements of the cell array matches switch_expression, as defined above for numbers, strings and objects.

When a case is true, MATLAB executes the corresponding statements and then exits the switch block.

The **otherwise** block is optional and executes only when no case is true.

Syntax

The syntax of switch statement in MATLAB is —

```
switch <switch_expression>
   case <case_expression>
      <statements>
   case <case_expression>
      <statements>
      ...
      ...
   otherwise
      <statements>
end
```

Example

Create a script file and type the following code in it —

```
grade = 'B';
   switch(grade)
   case 'A'
      fprintf('Excellent!\n' );
   case 'B'
      fprintf('Well done\n' );
   case 'C'
      fprintf('Well done\n' );
   case 'D'
      fprintf('You passed\n' );

   case 'F'
      fprintf('Better try again\n' );

   otherwise
      fprintf('Invalid grade\n' );
   end
```

When you run the file, it displays —

Well done.