TECHelium

Lets Face it, now

Project Oriented Python

Python While Loop & Programs

while

- **`while` loop**: Executes a group of statements as long as a condition is True.
  - good for *indefinite loops* (repeat an unknown number of times)
- Syntax:

```
while condition:
    statements
```

- Example:

```
number = 1
while number < 200:
    print number,
    number = number * 2
```

  - Output:

```
1 2 4 8 16 32 64 128
```

Logic

- Many logical expressions use *relational operators*:

Operator	Meaning	Example	Result
==	equals	`1 + 1 == 2`	`True`
!=	does not equal	`3.2 != 2.5`	`True`
<	less than	`10 < 5`	`False`
>	greater than	`10 > 5`	`True`
<=	less than or equal to	`126 <= 100`	`False`
>=	greater than or equal to	`5.0 >= 5.0`	`True`

- Logical expressions can be combined with *logical operators*:

Operator	Example	Result
`and`	`9 != 6 and 2 < 3`	`True`
`or`	`2 == 3 or -1 < 5`	`True`
`not`	`not 7 > 0`	`False`

Exercise

1. Write a program to print even number between 1 and 30.

2. Write a program to print prime number between 1 and 50
3. Write a program to count number of digits of the given integer.
4. Write a program to add digits of the given integer.

Thanks