



# Problem Solving With C - UE24CS151B

## Simple Input/Output

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# PROBLEM SOLVING WITH C

## Simple Input/Output

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1. Formatted output function
2. Formatted input function
3. Unformatted functions

### Formatted output function – printf()

- `int printf(const char *format, ...)`
- Predefined function in `stdio.h`
- Sends formatted output to `stdout` by default
- Output is controlled by the first argument
- Has the capability to evaluate an expression
- On success, it returns the number of characters successfully written on the output.
- On failure, a negative number is returned.
- Arguments to `printf` can be expressions
- Coding examples

### Format string

- % [flags] [field\_width] [.precision] conversion\_character  
where components in brackets [] are optional. The minimum requirement is % and a conversion character (e.g. %d).
- %d, %x, %o, %f, %c, %p, %lf, %s
- Coding examples

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### Escape sequences

- Represented by two key strokes and represents one character
- `\n`, `\t`, `\r`, `\a`, `\",` `\'`, `\\`, `\b`
- Coding examples

### Formatted input function – scanf()

- `int scanf(const char *format, ...)`
- Predefined function in `stdio.h`
- `&` : Address operator is compulsory in `scanf` for all primary types
- Reads formatted input using `stdin`. By default keyboard
- This function returns the following value
  - `>0` — The number of items converted and assigned successfully.
  - `0` — No item was assigned.
  - `<0` — Read error encountered or end-of-file (EOF) reached before any assignment was made
- Coding examples

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### Unformatted functions

- Character input and output functions – **getchar()** and **putchar()**
- String input and output functions – **gets()** and **puts()** This will be discussed in unit – 2
- Coding examples



# THANK YOU

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