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- Basic types, definitions and functions
- Basic data structures
- More advanced data structures
- Higher order functions
- Exceptions, input/output and imperative constructs

## ► Modules and data abstraction

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Week 6 Échéance le déc 12, 2016 at 23:30 UTC

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### Functors

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### Modules as compilation units

- Project

## OPENING MODULES (45/45 points)

1. The code given in the template has been written using some values declared in three modules of the standard library. Can you find what are these three modules? When you have found them, just use `open` directives to have the code accepted by the type checker. Be aware that the `iter` function appears in multiple module and that the order in which you `open` the modules is important.

## YOUR OCAML ENVIRONMENT

```
1 open Digest;;
2 open String;;
3 open List;;
4
5 let print_hashes (hashes : Digest.t list) : unit =
6   let print_hash h = h |> to_hex |> uppercase |> print_endline in
7   iter print_hash hashes
8 ;;
9 |
```

Evaluate >

Switch >>

Typecheck

Reset Template

Full-screen |

Check & Save

### Exercise complete (click for details)

45 pts

#### ▼ Exercise 1: Finding open

Completed, 45 pts

Yes, you'll need some List

5 pts

You'll need a String indeed

5 pts

You'll need to Digest that's for sure

5 pts

You found just the three needed cases, bravo!

5 pts

Now I will check that your function actually works

Found print\_hashes with compatible type.

Computing

```
print_hashes
["|\255\157\231\229\n\028\209\202\021\226\223\018\026X\156";
"5\243\169\214z9\237\128\207M-V\020\243\025>";
"\180\004X\131\133\144\252\202\11\168#\187\173\129\222";
"\223U\230kH\164]\019\204\204K3\0293\135\225";
"\029\022\137)A@4\140\001+\238\127\167\177\142\176"]
```

Expected output

5 pts

```
7CFF9DE7E50A1CD1CA15E2DF121A589C
35F3A9D67A39ED80CF4D2D5614F3193E
B40458838590FCCA6C31A823BBAD81DE
DF55E66B48A45D13CCCC4B331D3387E1
1D1689294140348C012BEE7FA7B18EB0
```

Computing

```
print_hashes
["Y\159U\001\252h\196\196\152\148\004\182\203\187\133w";
"\001\171\252u\n\012\148!ge\028@\208\136S\029"]
```

Expected output

5 pts

```
599F5501FC68C4C4989404B6CBBB8577
01ABFC750A0C942167651C40D088531D
```

Computing

```
print_hashes
["\I86\022=\020\202 \191p\201\144\005<\002\209\226N";
"\156\190\149\153\2390\024\165\nt\161\244\165{\154\002";
"\240e\172.\130rL\132s\150\176\244x]5\182"]
```

Expected output

5 pts

```
BA163D14CA20BF70C990053C02D1E24E
9CBE9599EF3018A50A74A1F4A57B9A02
F065AC2E82724C847396B0F4785D35B6
```



Rechercher un cours



```
Expected output
01EDD92D0E7941ED38B57E208D4BD054
5003D84A7E2659DD8FA7F8107902879A
Computing
print_hashes
["\252v<\179\030\1538\243w79F\129\""\143\131";
";\151\255\001?R\205\026\253\243\252\187\030\196t/";
",\031\241\255\196&\003\141\006\0036\197\252D\n\241";
"<\235c\237\025\020\020\178*\226\240\239g\200\243\193"]
Expected output
FC763CB31E9938F37737394681228F83
3B97FF013F52CD1AFDF3FCBB1EC4742F
2C1FF1FFC426038D060336C5FC440AF1
3CEB63ED191414B22AE2F0EF67C8F3C1
```

5 pts

5 pts

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