COS10004 Computer Systems Assignment 2

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1 mov

1.1 Syntax

```
mov x, y
```

Where:

- x is the destination

- y is the value

1.2 Description

Used to move a value into a register. Note that values must have 24 consecutive zeroes in it's binary notation.

1.3 Example

```
mov r0, $3F0000 ; valid
mov r0, $003F00 ; valid
mov r0, $00003F ; valid
mov r0, $300F00 ; invalid
```

2 orr

2.1 Syntax

```
orr x, y
```

Where:

- x is value 1 and the destination

- y is value 2

2.2 Description

Performs a bitwise OR operation on x and y, storing the result in x.

2.3 Example

```
mov r0, $10 ; r0 has 0x10
orr r0, $01 ; r0 has 0x11
```

3 ldr

3.1 Syntax

3.2 Description

3.3 Example

4 ldrd

4.1 Syntax

4.2 Description

4.3 Example

5 str

5.1 Syntax

5.2 Description

5.3 Example

6 add

6.1 Syntax

6.2 Description

6.3 Example

7 sub

7.1 Syntax

7.2 Description

7.3 Example

8 b

8.1 Syntax

8.2 Description

8.3 Example

9 push

9.1 Syntax

9.2 Description

9.3 Example

10 pop

10.1 Syntax

10.2 Description

10.3 Example