Make eNodeB-ID

```
library(tidyverse)
```

This function converts a cell-ID to an eNodeB-ID:

```
cell_id_to_enodeb = function(cell_id) {
  result = tryCatch(
    {
      hex_string = as.character(as.hexmode(cell_id))
      enodeb_hex = str_sub(hex_string, start=1, end=-3)
      enodeb_integer = as.integer(as.hexmode(enodeb_hex))
      return(enodeb_integer)
    },
    error = function(err) {
      return(NA)
    }
  )
  return(result)
}
```

Let's test it using the example from the slides (the correct eNodeB-ID is 50464):

```
cell_id_to_enodeb(12918809)
```

```
## [1] 50464
```

A few more tests:

```
print(cell_id_to_enodeb(13828122)==54016)
```

```
## [1] TRUE
```

```
print(cell_id_to_enodeb(26385408)==103068)
```

```
## [1] TRUE
```

```
print(cell_id_to_enodeb(13067274)==51044)
```

```
## [1] TRUE
```

```
print(is.na(cell_id_to_enodeb(NA)))
```

```
## [1] TRUE
```

```
print(is.na(cell_id_to_enodeb(0)))
```

```
## [1] TRUE
```

Now it's time to add the eNodeB-ID to the datasets:

```
# upload
dataset_ul = read_csv("../datasets/dataset_ul.csv", col_types = cols(ci=col_integer()))
dataset_ul_enodeb = dataset_ul %>% mutate(enodeb=map_int(ci, cell_id_to_enodeb))
```

```r
# download
dataset_dl = read_csv("../datasets/dataset_dl.csv", col_types = cols(ci=col_integer()))
dataset_dl_enodeb = dataset_dl %>% mutate(enodeb=map_int(ci, cell_id_to_enodeb))

# context
dataset_context = read_csv("../datasets/dataset_context.csv", col_types = cols(ci=col_integer()))
dataset_context_enodeb = dataset_context %>% mutate(enodeb=map_int(ci, cell_id_to_enodeb))
```

```r
write_csv(dataset_ul_enodeb, "../datasets/dataset_ul_enodeb.csv")
write_csv(dataset_dl_enodeb, "../datasets/dataset_dl_enodeb.csv")
write_csv(dataset_context_enodeb, "../datasets/dataset_context_enodeb.csv")
```