Handling author and affiliation with a RMarkdown file.

## Assuming we have a dataframe with the following author information (assuming the author order is the same as it should be on the paper):

* name
* affiliation 1, 2, 3, …
* address of the affiliation 1, 2, 3, …

## Each affiliation and address should be in separate columns.

df <- data.frame(  
 Name = c("Georg J. A. Hähn", "Max Mustermann"),  
 `Affiliation1` = c("MLU", "iDiv"),  
 `Address1` = c("Halle (Saale), Germany", "Leipzig, Germany"),  
 `Affiliation2` = c("iDiv", "Musteruni"),  
 `Address2` = c("Leipzig, Germany", "Musterstadt, Musterland"),  
 `Affiliation3` = c("Uni Bologna", NA),  
 `Address3` = c("Bologna, Italy", NA)  
)  
  
  
flextable(df[,1:4]) %>%   
 theme\_zebra() %>%   
 autofit()

| **Name** | **Affiliation1** | **Address1** | **Affiliation2** |
| --- | --- | --- | --- |
| Georg J. A. Hähn | MLU | Halle (Saale), Germany | iDiv |
| Max Mustermann | iDiv | Leipzig, Germany | Musteruni |

## Now we combine the affiliation with the address:

df1 <- df %>%   
 mutate(  
 Affiliation1 = ifelse(!is.na(`Affiliation1`), paste0(`Affiliation1`, ", ", `Address1`), NA),  
 Affiliation2 = ifelse(!is.na(`Affiliation2`), paste0(`Affiliation2`, ", ", `Address2`), NA),  
 Affiliation3 = ifelse(!is.na(`Affiliation3`), paste0(`Affiliation3`, ", ", `Address3`), NA)  
 ) %>%   
 dplyr::select(Affiliation1, Affiliation2, Affiliation3, Name)  
  
flextable(df1[,1:4]) %>%   
 theme\_zebra() %>%   
 autofit()

| **Affiliation1** | **Affiliation2** | **Affiliation3** | **Name** |
| --- | --- | --- | --- |
| MLU, Halle (Saale), Germany | iDiv, Leipzig, Germany | Uni Bologna, Bologna, Italy | Georg J. A. Hähn |
| iDiv, Leipzig, Germany | Musteruni, Musterstadt, Musterland |  | Max Mustermann |

## Here, we bring the affiliation to one column and keep the original order of the authors.

# Get affiliations while keeping the original author order  
affil <- gather(df1, key = "Level", value = "Affiliation", -c(Name)) %>%   
 filter(stringr::str\_detect(Level, "Affil")) %>%   
 arrange(match(Name, df1$Name))  
  
flextable(affil) %>%   
 theme\_zebra() %>%   
 autofit()

| **Name** | **Level** | **Affiliation** |
| --- | --- | --- |
| Georg J. A. Hähn | Affiliation1 | MLU, Halle (Saale), Germany |
| Georg J. A. Hähn | Affiliation2 | iDiv, Leipzig, Germany |
| Georg J. A. Hähn | Affiliation3 | Uni Bologna, Bologna, Italy |
| Max Mustermann | Affiliation1 | iDiv, Leipzig, Germany |
| Max Mustermann | Affiliation2 | Musteruni, Musterstadt, Musterland |
| Max Mustermann | Affiliation3 |  |

## The affiliations are ordered, therefore we can simply add the numbers 1 to n(affiliations)

affil\_order <- data.frame(Affiliation = na.omit(unique(affil$Affiliation)),  
 Number = 1:length(na.omit(unique(affil$Affiliation))))  
  
flextable(affil\_order) %>%   
 theme\_zebra() %>%   
 autofit()

| **Affiliation** | **Number** |
| --- | --- |
| MLU, Halle (Saale), Germany | 1 |
| iDiv, Leipzig, Germany | 2 |
| Uni Bologna, Bologna, Italy | 3 |
| Musteruni, Musterstadt, Musterland | 4 |

## Link the number to the affiliation in the author list, and combine all numbers for each author in one column:

authors\_numbers = affil %>%   
 right\_join(affil\_order %>% na.omit(), by = "Affiliation") %>%   
 group\_by(Name) %>%   
 summarize(Affil = paste(Number, collapse = ",")) %>%   
 arrange(match(Name, df1$Name))  
  
flextable(authors\_numbers) %>%   
 theme\_zebra() %>%   
 autofit()

| **Name** | **Affil** |
| --- | --- |
| Georg J. A. Hähn | 1,2,3 |
| Max Mustermann | 2,4 |

## For the authors we can simply create a long string with all names and the numbers as superscript. For the first author we add the \* as we want to indicate that he is the first author of the paper.

authorlist <- ""  
  
for (i in 1:length(authors\_numbers$Name)) {  
  
 str <- paste0(authors\_numbers[i, "Name"], "^", ifelse(i == 1, paste0(authors\_numbers[i, "Affil"], ",\\\*"),   
 authors\_numbers[i, "Affil"]),   
 "^", ifelse(i == length(authors\_numbers$Name), "", ", "), sep = "")  
 authorlist <- paste0(authorlist, str, sep = "")  
}

Georg J. A. Hähn1,2,3,\*, Max Mustermann2,4

## For the affiliation list we do the same as for the authors but we sperate them with a linebreak instead of a comma.

affillist <- "\\\* Corresponding author \n \n"  
  
for (i in 1:length(affil\_order$Affiliation)) {  
 a <- paste0("^", affil\_order[i, "Number"], "^", " ", affil\_order[i, "Affiliation"], sep = "\n")  
 affillist <- paste0(affillist, a)  
}

## To print the affiliation list we need to slightly modify the cat function:

mycat <- function(text){  
 cat(gsub(pattern = "\n", replacement = " \n", x = text))  
}  
mycat(affillist)

\* Corresponding author

1 MLU, Halle (Saale), Germany  
2 iDiv, Leipzig, Germany  
3 Uni Bologna, Bologna, Italy  
4 Musteruni, Musterstadt, Musterland

## Done. The final result:

Georg J. A. Hähn1,2,3,\*, Max Mustermann2,4

\* Corresponding author

1 MLU, Halle (Saale), Germany  
2 iDiv, Leipzig, Germany  
3 Uni Bologna, Bologna, Italy  
4 Musteruni, Musterstadt, Musterland