1. (a) Create a spreadsheet using Google sheets that contains employee salary information and calculate net salary. You may use the following labels and data: 10

Name	Basic Salary	DA	PF	TAX	Net Salary
ABC	50,000				
XYZ	25,000				
DEF	75,000				

You need to compute DA, PF, TAX and Bet Salary using the following formula:

DA = 20% of the Basic Salary

PF = 10% of Basic Salary if Basic salary $\leq$ 30,000

12% of Basic Salary if Basic salary >30,000

TAX = 10% of Basic Salary if Basic salary <50,000

TAX = 15% of Basic Salary if Basic salary $\geq$ 50,000

Net Salary = Basic salary + DA + PF – TAX

(b) List the feature of YouTube, a cloud Service. List the steps of uploading your own educational video(s) on YouTube. Also, list the appropriate settings to make it public. 10

Employee Salary Calculation

Name	Basic Salary	DA	PF	TAX	Net Salary
ABC	50,000	`=B2 * 20%`	`=IF(B2 <= 30000, B2 * 10%, B2 * 12%)`	`=IF(B2 < 50000, B2 * 10%, B2 * 15%)`	`=B2 + C2 - E2`
XYZ	25,000	`=B3 * 20%`	`=IF(B3 <= 30000, B3 * 10%, B3 * 12%)`	`=IF(B3 < 50000, B3 * 10%, B3 * 15%)`	`=B3 + C3 - E3`
DEF	75,000	`=B4 * 20%`	`=IF(B4 <= 30000, B4 * 10%, B4 * 12%)`	`=IF(B4 < 50000, B4 * 10%, B4 * 15%)`	`=B4 + C4 - E4`

YouTube Features and Upload Instructions

Features of YouTube

- **Video Hosting:** Platform to upload, store, and share videos.
- **Video Playback:** Stream videos in various qualities including HD and 4K.
- **Monetization:** Earn money through ads, memberships, and Super Chat.
- **Live Streaming:** Broadcast live events and interact with viewers in real-time.
- **Playlists:** Organize videos into playlists for easy access and viewing.
- **Subscriptions:** Users can subscribe to channels to receive updates and notifications.
- **Comments and Likes:** Engage with viewers through comments and likes/dislikes.
- **Analytics:** Access detailed statistics on video performance and audience engagement.
- **Video Editing:** Basic editing tools for trimming, adding music, and applying filters.
- **Captions and Subtitles:** Add captions and subtitles to make content accessible.
- **Community Features:** Create posts and interact with viewers via community tab.
- **Content Recommendations:** Personalized video recommendations based on viewing history.

Steps to Upload Your Own Educational Video(s) on YouTube

1. **Sign In to YouTube:**
   - Go to YouTube and sign in with your Google account.
2. **Access the Upload Page:**
   - Click on the camera icon with a "+" sign (Create button) located at the top-right corner.
   - Select `Upload video` from the dropdown menu.
3. **Upload Your Video:**
   - Click `Select files` to choose the video file from your computer or drag and drop the file into the upload area.
   - While the video uploads, you can enter the video details.
4. **Enter Video Details:**
   - **Title:** Provide a descriptive title for your video.
   - **Description:** Add a detailed description including key information and links.

- **Thumbnail:** Choose or upload a custom thumbnail image for your video.
- **Playlist:** Add your video to a playlist if applicable.

5. **Select Video Settings:**
   - **Audience:** Indicate if the video is made for kids or not.
   - **Age Restriction:** Set age restrictions if the content is not suitable for all ages.
6. **Add Video Elements:**
   - **End Screens:** Add interactive elements at the end of your video.
   - **Cards:** Add clickable cards to promote other content or external links.
7. **Set Visibility:**
   - **Public:** Choose this option to make the video available to everyone.
   - **Unlisted:** The video can be viewed by anyone with the link.
   - **Private:** Only specific users you invite can view the video.
8. **Publish Your Video:**
   - Click `Publish` to make the video live based on the visibility setting you chose.
   - If you selected `Scheduled`, set the date and time for when the video should be published.

Appropriate Settings to Make Your Video Public

- **Visibility:** Set to `Public`.
- **Distribution:** Ensure the video is not restricted or age-restricted unless necessary.
- **Search Settings:** Allow the video to appear in search results and suggested videos.
- **Sharing Options:** Ensure that sharing options are enabled for broad distribution.

2. The weight of 10 students in the age group 15-20 is given in the following table:

45	55	65	38	48
50	54	60	39	49

Write R program (use the data given below) for the following:

(i) Finding the minimum and maximum weight. 4

(ii) Create a grouped frequency distribution and relevant graph of frequency distribution for the data given in the table above. 8

(iii) Find the percentage of weights between 40 and 49. 8

```
# Define the weight data
weights <- c(45, 55, 65, 38, 50, 54, 60, 48, 39, 49)

# Find the minimum and maximum weight
min_weight <- min(weights)
```

```
max_weight <- max(weights)

# Print the results
cat("Minimum Weight:", min_weight, "\n")
cat("Maximum Weight:", max_weight, "\n")

# Create a grouped frequency distribution
# Define the breaks for grouping
breaks <- seq(30, 70, by = 10)  # Adjust the range and intervals as needed

# Cut the data into groups
weight_groups <- cut(weights, breaks = breaks, right = FALSE)

# Create a table of frequencies for each group
freq_table <- table(weight_groups)

# Print the frequency table
print(freq_table)

# Save the plot as a PNG file
png(filename = "frequency_distribution2.png")

# Plot the frequency distribution
barplot(freq_table, main = "Grouped Frequency Distribution of Weights",
        xlab = "Weight Groups", ylab = "Frequency", col = "lightblue")

# Find the number of weights between 40 and 49
weights_in_range <- weights[weights >= 40 & weights <= 49]
num_in_range <- length(weights_in_range)

# Calculate the percentage
total_weights <- length(weights)
percentage_in_range <- (num_in_range / total_weights) * 100

# Print the percentage
cat("Percentage of weights between 40 and 49:", percentage_in_range, "%\n")
```