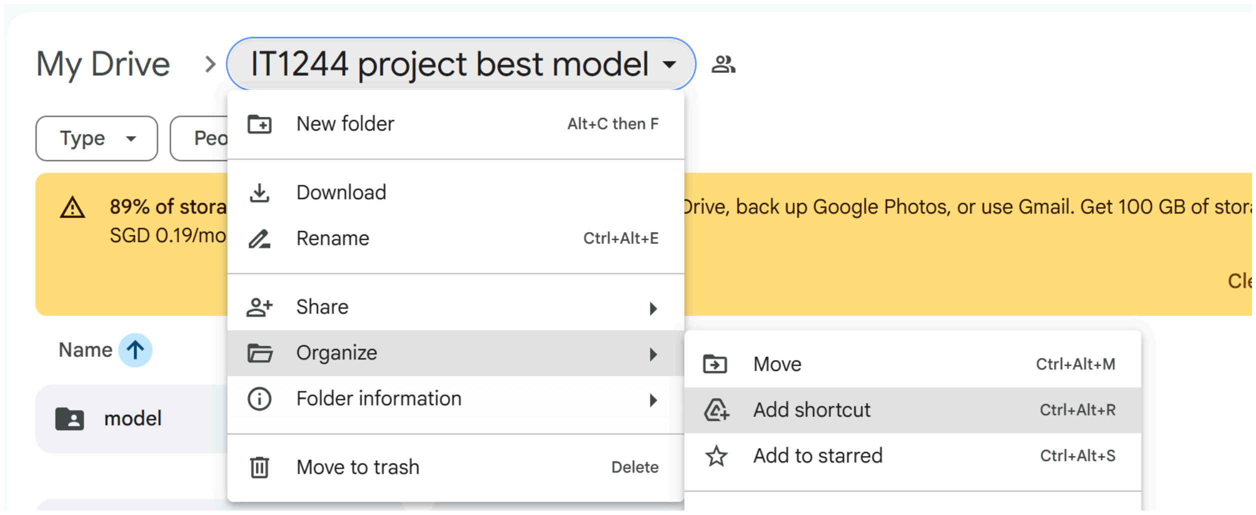
INSTRUCTIONS TO RUN AND TEST MODEL

Google Drive Folder:
https://drive.google.com/drive/folders/1-nO7be_kl3Y9nEbxov89QGwnWM8JwOSs?usp=sharing

After obtaining the shared Google Drive folder right click the file name and click add shortcut as shown below.



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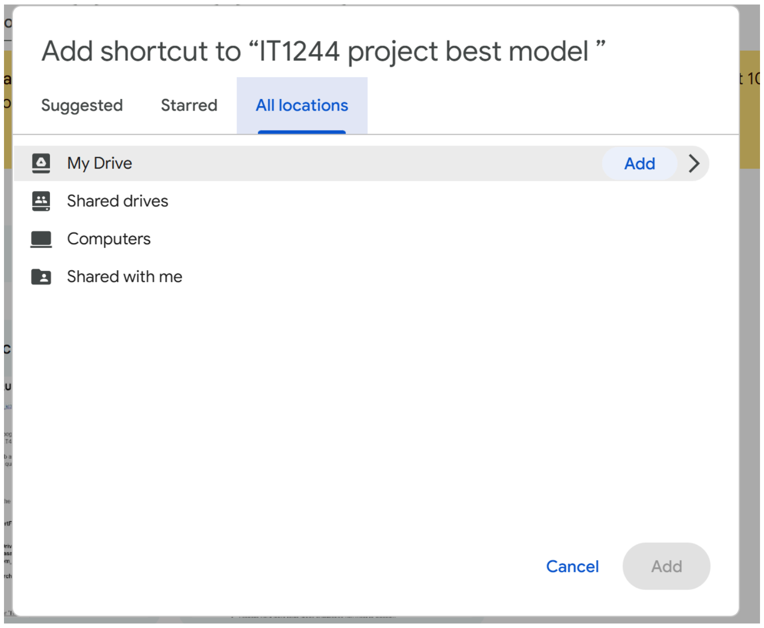


Steps to run model

1. Open the notebook main.ipynb in Google Colab (or any Python environment).
    - Make sure your runtime is on T4 GPU (Top right corner to change)

2. Mount google drive (This gives collab access to your Google Drive: Google Drive has to be used here as our model is quite large) Use:

```
from google.colab import drive
drive.mount('/content/drive')
```

3. Load the model and tokenizer from the Google Drive folder

```
import torch
from transformers import DistilBertForSequenceClassification,
DistilBertTokenizer

model_path = "/content/drive/MyDrive/IT1244 project best model /model"
model = DistilBertForSequenceClassification.from_pretrained(model_path)
tokenizer = DistilBertTokenizer.from_pretrained(model_path)

device = torch.device("cuda" if torch.cuda.is_available() else "cpu")
model.to(device)
model.eval()
```

***pls take note there is a space after “IT1244 project best model”
Also for the model_path it may be different depending on the directory of your Google Drive.

4. Prepare your input texts (book summaries you want to classify).
Eg:

```
texts = [
   "A young wizard discovers his magical powers and attends a school of
magic.",
   "A historical account of the life of a famous king in the 17th century."
]
```

5. Tokenize inputs:

```
max_len = 256
inputs = tokenizer(
    texts,
    truncation=True,
    padding="max_length",
    max_length=max_len,
    return_tensors="pt"
)
inputs = {k: v.to(device) for k, v in inputs.items()}
```

6. Run inference using the model to get predicted genre indices.

```
with torch.no_grad():
    outputs = model(**inputs)
    predictions = torch.argmax(outputs.logits, dim=1).cpu().numpy()

print("Predicted class indices:", predictions)
```

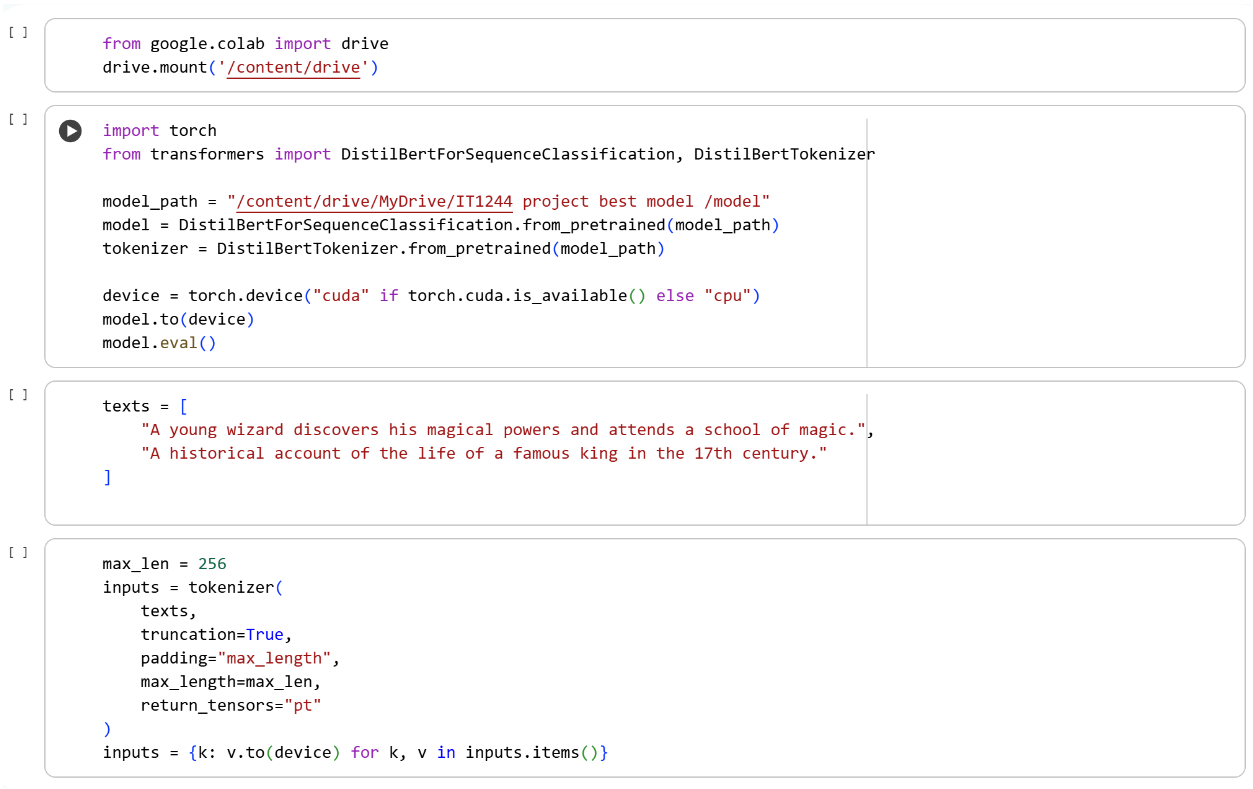
7. Map the predictions back to the corresponding genre names (please use this genre mapping as we changed it slightly when doing data cleaning).

```
genre_mapping = {
    0: "crime",
    1: "fantasy",
    2: "history",
    3: "horror",
    4: "psychology",
    5: "romance",
    6: "science",
    7: "sports",
    8: "thriller",
    9: "travel"
}

predicted_genres = [genre_mapping[int(p)] for p in predictions]
print("Predicted genres:", predicted_genres)
```

8. Run all cells to get predicted genres

How it should look like on Google Collab



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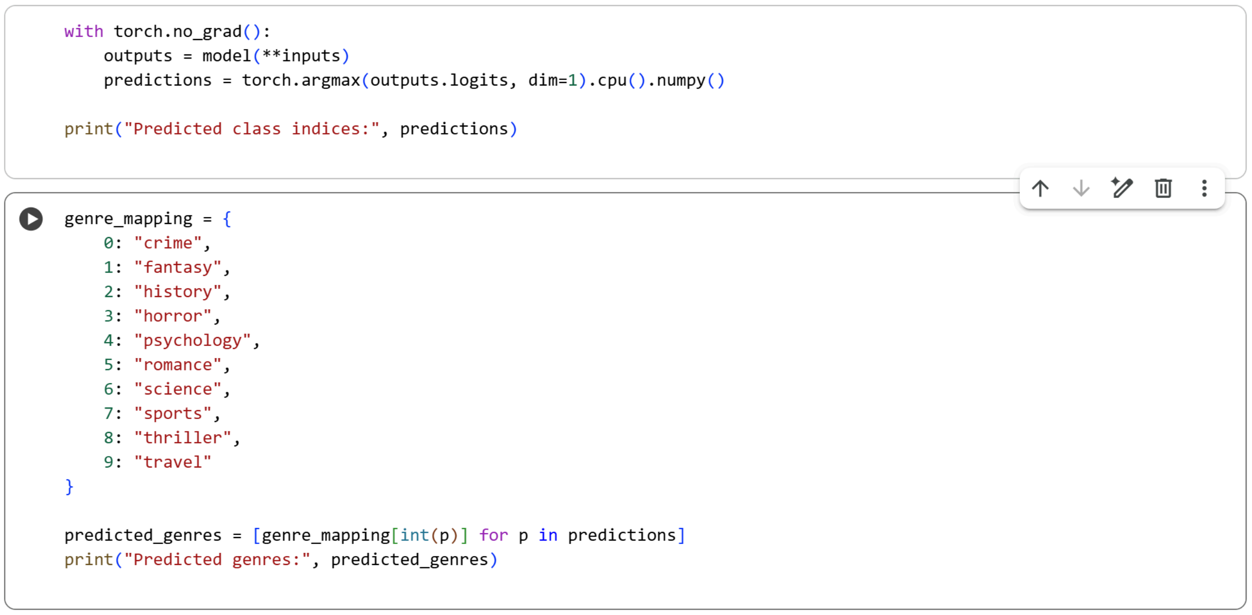

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