

Task 5: Auto Tagging Support Tickets Using LLM**LLM**

```
# step 1: Install lightweight transformers
!pip install -q transformers
```

```
# Step 2: Use pipeline for zero-shot classification
from transformers import pipeline
```

```
classifier = pipeline("zero-shot-classification", model="facebook/bart-large-mnli")
```

```
# Step 3: Define labels
labels = ["Billing", "Technical Issue", "Account", "Refund", "Others"]
```

```
# Step 4: Sample Support Ticket Texts
examples = [
    "I was charged twice this month and need a refund.",
    "My internet is down since yesterday.",
    "How do I update my email and phone number on my account?",
    "When will the payment be deducted?",
    "I want to close my account permanently."
]
```

```
# Step 5: Predict tags
for text in examples:
    result = classifier(text, candidate_labels=labels)
    print(f"\n📄 Text: {text}")
    print(f"🏷️ Top 3 Tags: {result['labels'][:3]} – Scores: {result['scores'][:3]}")
```

🔗 /usr/local/lib/python3.11/dist-packages/huggingface_hub/utils/_auth.py:94: UserWarning:
The secret `HF_TOKEN` does not exist in your Colab secrets.
To authenticate with the Hugging Face Hub, create a token in your settings tab (<https://huggingface.co/settings/tokens>), set it as secret.
You will be able to reuse this secret in all of your notebooks.
Please note that authentication is recommended but still optional to access public models or datasets.

```
warnings.warn(
config.json:      1.15k/? [00:00<00:00, 49.6kB/s]
model.safetensors: 100%                               1.63G/1.63G [00:52<00:00, 27.9MB/s]
tokenizer_config.json: 100%                             26.0/26.0 [00:00<00:00, 416B/s]
vocab.json:       899k/? [00:00<00:00, 8.17MB/s]
merges.txt:       456k/? [00:00<00:00, 4.07MB/s]
tokenizer.json:   1.36M/? [00:00<00:00, 14.8MB/s]
Device set to use cpu
```

```
📄 Text: I was charged twice this month and need a refund.
🏷️ Top 3 Tags: ['Refund', 'Account', 'Billing'] – Scores: [0.7596130967140198, 0.10618831217288971, 0.06879429519176483]
```

```
📄 Text: My internet is down since yesterday.
🏷️ Top 3 Tags: ['Technical Issue', 'Others', 'Account'] – Scores: [0.5524721145629883, 0.16227227449417114, 0.1425454020500183]
```

```
📄 Text: How do I update my email and phone number on my account?
🏷️ Top 3 Tags: ['Technical Issue', 'Account', 'Others'] – Scores: [0.43023309111595154, 0.3616339862346649, 0.12787576019763947]
```

```
📄 Text: When will the payment be deducted?
🏷️ Top 3 Tags: ['Account', 'Others', 'Billing'] – Scores: [0.3376603424549103, 0.2733270525932312, 0.15842224657535553]
```

```
📄 Text: I want to close my account permanently.
🏷️ Top 3 Tags: ['Account', 'Refund', 'Others'] – Scores: [0.7301690578460693, 0.0950530543923378, 0.09380877763032913]
```

◆ What can I help you build?



