provided in the runtime to the user prompt.

"You are an expert in summarization. You are given a Stack Overflow post with the <Label> of the <Post>. Now return the characteristic of the post in very short (1 / 2 sentences) by observing the label of the post. The sample return output is as below, 'ValueError: class_weight in Keras fails for multi-label binary classification'.

Figure 3: Concept distillation system prompt.

"You are an expert in summarization. You are given some characteristics of a particular class. You have to observe the characteristics and return a summary of them by removing redundancy and preserving the uniqueness. It should not be very large nor small. Just return the summary. Do not start with 'the summary is' or 'summary:' type words."

Figure 4: Characteristics consolidation system prompt.

"You are an expert in summarization and reasoning. You are given a Stack Overflow post containing an <Answer> and its associated <Label> along with the <Label Description> presenting what it means. Your task is to: Concisely summarize the post, preserving all critical information. Explain why the post has been assigned the given label, providing a clear chain of thought and reasoning. Ensure the response is structured as a short paragraph that integrates the summary, the solution, and the reasoning seamlessly. Avoid phrases like 'The summary is' and focus on providing a cohesive and informative output."

Figure 5: Summarization and reasoning system prompt.

"You are given a Stack Overflow post. You have to summarize the post. You may illustrate the error in detail. Do not provide any solution to this problem. The overall output should be short. Just return the summary without extra words."

Figure 6: Test instance summarization system prompt..

```
system_prompt = f "You are a one-shot classifier
    that categorizes Stack Overflow posts. You
    have to return one value from this list only:
     {class_list}. Based on the bug type of the
    test sample, return only ONE VALUE FROM THE
    LIST. The characteristics of each class are
    provided below:"

for class_name in class_list:
    system_prompt += "\n\n\n" + class_name + ": "
        + characteristics[class_name]
```

Figure 7: Classification system prompt.

"You are an expert in summarization. You are given a Stack Overflow post with the <Label> and the <Label Description> of the <Post>. Now summarize the post by preserving the critical information. You may look into the <Label> and <Label Description> for understanding the critical region, but the summary should contain only the information from the post. The overall output should be short like a paragraph. Do not start with 'the summary is' type words, and do not provide a solution."

Figure 8: Contextual summary system prompt.