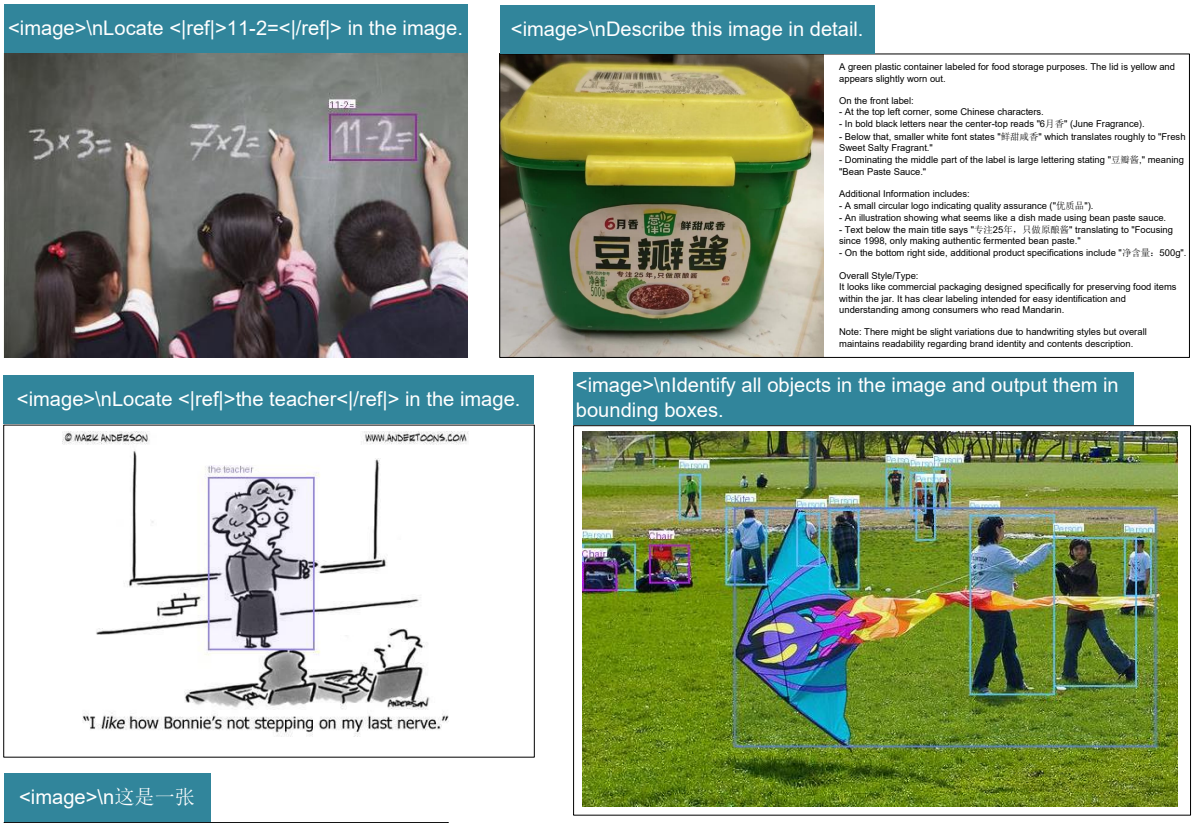

Figure 12 | We retain DeepSeek-OCR's capabilities in general visual understanding, mainly including image description, object detection, grounding, etc. Meanwhile, due to the inclusion of text-only data, DeepSeek-OCR's language capabilities are also retained. Note that since we do not include SFT (Supervised Fine-Tuning) stage, the model is not a chatbot, and some capabilities need completion prompts to be activated.

5. Discussion

Our work represents an initial exploration into the boundaries of vision-text compression, investigating how many vision tokens are required to decode N text tokens. The preliminary results are encouraging: DeepSeek-OCR achieves near-lossless OCR compression at approximately 10× ratios, while 20× compression still retains 60% accuracy. These findings suggest promising directions for future applications, such as implementing optical processing for dialogue histories beyond k rounds in multi-turn conversations to achieve 10× compression efficiency.