Code Snippets:

```python
import datetime
# 1 usage
class Child:
    def __init__(self, name, dob):
        self.name = name
        self.dob = dob
        self.vaccination_records = []
    def add_vaccination(self, vaccine_name, date):
        self.vaccination_records.append((vaccine_name, date))
# 1 usage
class VaccinationSystem:
    def __init__(self):
        self.children = []
    # 1 usage
    def add_child(self, name, dob):
        try:
            datetime.datetime.strptime(dob, __format: "%d-%m-%Y")  # Validates the date format
            child = Child(name, dob)
            self.children.append(child)
            print(f"\nChild '[name]' added successfully!")
        except ValueError:
            print("\nInvalid date format! Please enter the date in DD-MM-YYYY format.")
    # 1 usage
    def book_appointment(self, child_name, vaccine_name, date):
        child = self.find_child(child_name)
        if child:
            try:
                datetime.datetime.strptime(date, format: "%d-%m-%Y")  # Validates the date format
```

```python
            print("\nInvalid date format! Please enter the date in DD-MM-YYYY format.")
    # 1 usage
    def book_appointment(self, child_name, vaccine_name, date):
        child = self.find_child(child_name)
        if child:
            try:
                datetime.datetime.strptime(date, __format: "%d-%m-%Y")  # Validates the date format
                child.add_vaccination(vaccine_name, date)
                print(f"\nAppointment booked for {child_name} on {date} for vaccine '{vaccine_name}'")
            except ValueError:
                print("\nInvalid date format! Please enter the date in DD-MM-YYYY format.")
        else:
            print(f"\nChild '{child_name}' not found!")
    # 1 usage
    def view_appointments(self, child_name):
        child = self.find_child(child_name)
        if child:
            print(f"\nAppointments for {child.name}:")
            if child.vaccination_records:
                for record in child.vaccination_records:
                    print(f"Vaccine: {record[0]}, Date: {record[1]}")
            else:
                print("No appointments found.")
        else:
            print(f"\nChild '{child_name}' not found!")
    # 1 usage
    def view_reminders(self):
        today = datetime.date.today()
```
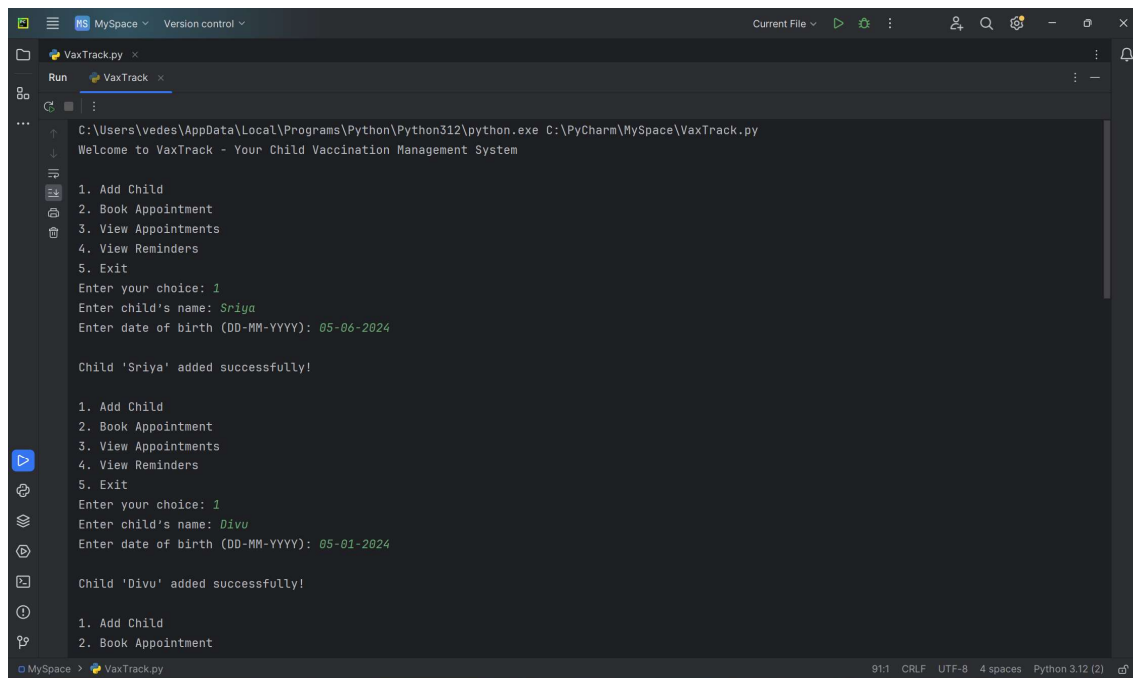
```python
41              print(f"\nChild '{child_name}' not found!")
                                                                          1 usage
42      def view_reminders(self):
43          today = datetime.date.today()
44          print("\nUpcoming Vaccination Reminders:")
45          found_reminder = False
46          for child in self.children:
47              for record in child.vaccination_records:
48                  vaccine_date = datetime.datetime.strptime(record[1], __format: "%d-%m-%Y").date()
49                  days_difference = (vaccine_date - today).days
50                  if 0 <= days_difference <= 7:
51                      print(f"Reminder: {child.name} - {record[0]} on {record[1]}")
52                      found_reminder = True
53          if not found_reminder:
54              print("No reminders for the upcoming 7 days.")
                                                                          2 usages
55      def find_child(self, name):
56          for child in self.children:
57              if child.name == name:
58                  return child
59          return None
                                                                          1 usage
60  def main():
61      print("Welcome to VaxTrack - Your Child Vaccination Management System")
62      system = VaccinationSystem()
63      while True:
64          print("\n1. Add Child")
65          print("2. Book Appointment")
```

```python
65          print("2. Book Appointment")
66          print("3. View Appointments")
67          print("4. View Reminders")
68          print("5. Exit")
69          choice = input("Enter your choice: ")
70          if choice == '1':
71              name = input('Enter child's name: ')
72              dob = input("Enter date of birth (DD-MM-YYYY): ")
73              system.add_child(name, dob)
74          elif choice == '2':
75              name = input('Enter child's name: ')
76              vaccine = input("Enter vaccine name: ")
77              date = input("Enter appointment date (DD-MM-YYYY): ")
78              system.book_appointment(name, vaccine, date)
79          elif choice == '3':
80              name = input('Enter child's name: ')
81              system.view_appointments(name)
82          elif choice == '4':
83              system.view_reminders()
84          elif choice == '5':
85              print("\nThank you for using VaxTrack. Stay safe and healthy!")
86              break
87          else:
88              print("Invalid choice! Please try again.")
89  if __name__ == "__main__":
90      main()
91
```

How It Works:

- **Add Child**: Add a new child's information.

- **Book Appointment**: Schedule a vaccination by providing the child's name, vaccine name, and date.

- **View Appointments**: Display all scheduled vaccinations for a specific child.

- **View Reminders**: Shows upcoming vaccinations within the next 7 days.

Outputs:

```
1. Add Child
2. Book Appointment
3. View Appointments
4. View Reminders
5. Exit
Enter your choice: 2
Enter child's name: Sriya
Enter vaccine name: Polio
Enter appointment date (DD-MM-YYYY): 24-08-2024

Appointment booked for Sriya on 24-08-2024 for vaccine 'Polio'

1. Add Child
2. Book Appointment
3. View Appointments
4. View Reminders
5. Exit
Enter your choice: 2
Enter child's name: Divu
Enter vaccine name: Polio
Enter appointment date (DD-MM-YYYY): 25-08-2024

Appointment booked for Divu on 25-08-2024 for vaccine 'Polio'

1. Add Child
2. Book Appointment
```

```
Enter appointment date (DD-MM-YYYY): 25-08-2024

Appointment booked for Divu on 25-08-2024 for vaccine 'Polio'

1. Add Child
2. Book Appointment
3. View Appointments
4. View Reminders
5. Exit
Enter your choice: 3
Enter child's name: Divu

Appointments for Divu:
Vaccine: Polio, Date: 25-08-2024

1. Add Child
2. Book Appointment
3. View Appointments
4. View Reminders
5. Exit
Enter your choice: 4

Upcoming Vaccination Reminders:
Reminder: Sriya - Polio on 24-08-2024
Reminder: Divu - Polio on 25-08-2024

1. Add Child
```

```
Enter child's name: Divu

Appointments for Divu:
Vaccine: Polio, Date: 25-08-2024

1. Add Child
2. Book Appointment
3. View Appointments
4. View Reminders
5. Exit
Enter your choice: 4

Upcoming Vaccination Reminders:
Reminder: Sriya - Polio on 24-08-2024
Reminder: Divu - Polio on 25-08-2024

1. Add Child
2. Book Appointment
3. View Appointments
4. View Reminders
5. Exit
Enter your choice: 5

Thank you for using VaxTrack. Stay safe and healthy!

Process finished with exit code 0
```