Documentation on Fittness Plan chart

Code Explanation and Documentation Summary

- 1. Imports and Libraries Used:
- Streamlit (`streamlit`) Used for building interactive web applications with Python.
- QR Code (`qrcode`): Library for generating QR codes programmatically.
- PIL (`Pillow`): Python Imaging Library, used here for manipulating images.
- BytesIO (`io.BytesIO`): Provides an in-memory binary stream for image handling.

- Documentation Reference:
- - Streamlit: [Streamlit Documentation](https://docs.streamlit.io/)
- - QRCode: [QRCode Documentation](https://pypi.org/project/qrcode/)
- - Pillow (PIL Fork): [Pillow Documentation](https://pillow.readthedocs.io/)
- - BytesIO: [io.BytesIO Documentation](https://docs.python.org/3/library/io.html#io.BytesIO)

2. Functions Defined:

- `generate_fitness_plan`: Generates a personalized fitness plan based on user inputs such as age, weight, fitness goal, and gender. The plan includes specific recommendations for losing weight, building muscle, or maintaining fitness, along with

additional notes based on age and weight, and gender-specific suggestions.

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- Documentation Reference:
- - Function Definitions: [Python Functions](https://docs.python.org/3/tutorial/controlflow.html#defining-functions)
- - String Manipulation: [Python String Methods]

3. Function `generate_qr_code` : Generates a QR code image from the provided text using the `qrcode` library and converts it into a PNG format image.

- Documentation Reference:
- - QRCode Generation: [QRCode Python Library]

4. Streamlit Application Setup:

- Title : Sets the title of the web application as "Personalized Fitness Plan Generator".
- User Inputs : Uses `st.number_input` and `st.selectbox` to gather user data such as age, weight, fitness goal, and gender.
- Documentation Reference:
- - Streamlit Components: [Streamlit Components]

5. Button to Generate Plan:

- Button (`st.button`) : When clicked, triggers the generation of a personalized fitness plan based on user inputs.
- Markdown (`st.markdown`) : Displays the generated fitness plan in Markdown format on the web app.

- QR Code Display and Download : Uses `st.image` to display the generated QR code and `st.download_button` to provide an option to download the QR code as a PNG file.
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- Documentation Reference
- - Interactivity and Widgets: [Streamlit Widgets](https://docs.streamlit.io/library/api-reference/widgets)

Summary

The provided code integrates Streamlit for building a web application that generates personalized fitness plans based on user inputs. It leverages QR code generation to visually represent the fitness plan and offers functionality to download the QR code image. The application is interactive, allowing users to select their fitness goals, input their demographic data, and receive customized fitness advice.

By using Streamlit alongside libraries like `qrcode` and `PIL`, the application provides a user-friendly interface for fitness enthusiasts to access tailored workout and diet recommendations based on their specific needs and goals.

This setup aligns with best practices for web development in Python, leveraging straightforward integration and interactive capabilities offered by Streamlit.