



Telegram Message Summarizer Bot - Complete Setup Guide

Welcome! This guide will help you set up your own Telegram bot that summarizes group chat messages. **No coding knowledge required!** Just follow these steps carefully.



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What You'll Need

Before starting, make sure you have:

- ☒ A Telegram account
- ☒ A GitHub account (free - sign up at github.com (<https://github.com>))
- ☒ An OpenAI account (you'll need to add payment details, but costs are very low - typically \$0.01-0.05 per summary)
- ☒ About 30-45 minutes of time
- ☒ This bot code (you already have it!)

Cost Estimate:

- Telegram Bot: **FREE** ✨
 - GitHub: **FREE** ✨
 - Railway/Render: **FREE** tier available (sufficient for most users) ✨
 - OpenAI API: Pay-as-you-go (approximately \$0.002-0.005 per summary with GPT-3.5-turbo)
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Step 1: Create Your Telegram Bot

1.1 Open Telegram and Find BotFather

1. Open the Telegram app on your phone or computer

2. In the search bar at the top, type: **@BotFather**
3. Click on the official BotFather (it has a blue verification checkmark ✓)
4. Click **START** at the bottom

1.2 Create Your New Bot

1. Send this message to BotFather: `/newbot`
2. BotFather will ask you to choose a **name** for your bot
 - Example: "My Message Summarizer"
 - Type your chosen name and send it
3. BotFather will ask you to choose a **username** for your bot
 - Must end with "bot" (e.g., "MySummarizerBot" or "message_summary_bot")
 - Must be unique (not already taken)
 - Example: `my_summarizer_bot`
 - Type your chosen username and send it
4. **SUCCESS!** 🎉 BotFather will send you a message containing your **Bot Token**
 - It looks like this: `6234567890:ABCdefGHIjklMNOpqrsTUVwxyz-1234567890`
 - **IMPORTANT:** Keep this token secret! Anyone with this token can control your bot

1.3 Save Your Bot Token

1. **Copy the entire token** (it's a long string of numbers, letters, and symbols)
2. Save it in a safe place - you'll need it soon
 - Example: Create a text file on your computer called "bot-credentials.txt"
 - Paste the token there

1.4 Configure Your Bot Settings (Optional but Recommended)

Send these commands to BotFather to set up your bot:

1. Set a description (what users see when they first start your bot):
 - `/setdescription`
 - Choose your bot from the list
 - Send: "I can summarize group chat messages! Just mention me to get a summary."
2. Set a profile picture (optional):
 - `/setuserpic`
 - Choose your bot
 - Upload an image
3. Enable Group Privacy OFF (so bot can read messages):
 - `/setprivacy`
 - Choose your bot
 - Click **Disable**
 - This allows the bot to see all messages in group chats

- ✅ **Step 1 Complete!** You now have:
- Your Bot Token (saved safely)
 - Your Bot Username (remember it!)
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Step 2: Get Your OpenAI API Key

OpenAI provides the AI that creates the summaries. You'll need an API key.

2.1 Create an OpenAI Account

1. Go to <https://platform.openai.com/signup> (<https://platform.openai.com/signup>)
2. Click **Sign up** and create your account
3. Verify your email address
4. Log in to your account

2.2 Add Payment Information

1. After logging in, you'll see a message about adding payment details
2. Click on your profile icon (top right corner)
3. Go to **Billing** → **Payment methods**
4. Click **Add payment method**
5. Enter your credit/debit card information



Important Notes About Costs:

- OpenAI charges pay-as-you-go (you only pay for what you use)
- GPT-3.5-turbo costs approximately \$0.002 per summary
- Example: 100 summaries = approximately \$0.20
- You can set spending limits in the Billing section
- Recommended: Set a limit of \$5-10/month to start

2.3 Get Your API Key

1. Click on your profile icon (top right)
2. Select **API keys**
3. Click + **Create new secret key**
4. Give it a name (e.g., "Telegram Bot")
5. Click **Create secret key**
6. **IMPORTANT:** Copy the key immediately - you won't be able to see it again!
 - It looks like: `sk-proj-abcdefghijklmnopqrstuvwxyz1234567890...`
7. Save it in your "bot-credentials.txt" file



Step 2 Complete! You now have:

- OpenAI account
- API Key (saved safely)
- Payment method added

Step 3: Upload Your Bot Code to GitHub

GitHub will store your bot code and connect it to the hosting service.

3.1 Create a GitHub Account (if you don't have one)

1. Go to <https://github.com> (<https://github.com>)
2. Click **Sign up**
3. Follow the steps to create your account

4. Verify your email

3.2 Create a New Repository

1. Log in to GitHub
2. Click the + icon in the top right corner
3. Select **New repository**
4. Fill in the details:
 - **Repository name:** telegram-summarizer-bot (or any name you like)
 - **Description:** "A bot that summarizes Telegram group messages"
 - **Public or Private:** Choose **Public** (free) or **Private** (if you prefer)
 - **DO NOT** check "Add a README file" (we already have one)
5. Click **Create repository**

3.3 Upload Your Bot Files

Option A: Using GitHub Web Interface (Easiest)

1. You should see a page that says "Quick setup"
2. Click on **uploading an existing file**
3. Drag and drop ALL these files from your computer:
 - bot.py
 - requirements.txt
 - .env.example
 - Procfile
 - railway.json
 - render.yaml
 - runtime.txt
 - README.md
 - SETUP_INSTRUCTIONS.md (this file!)
4. Scroll down and click **Commit changes**

Option B: Using Git Command Line (For Advanced Users)

If you're comfortable with the command line:

```
cd telegram_summarizer_bot
git init
git add .
git commit -m "Initial commit"
git branch -M main
git remote add origin https://github.com/YOUR_USERNAME/telegram-summarizer-bot.git
git push -u origin main
```

✓ **Step 3 Complete!** Your code is now on GitHub!

Step 4: Deploy Your Bot

Now let's make your bot run 24/7 in the cloud! Choose **ONE** of these options:

Option A: Deploy on Railway (Recommended)

Railway is beginner-friendly and offers a generous free tier.

4.1 Create a Railway Account

1. Go to <https://railway.app> (`https://railway.app`)
2. Click **Login** (top right)
3. Click **Sign in with GitHub**
4. Authorize Railway to access your GitHub account

4.2 Create a New Project

1. Click **New Project** (or **+ New**)
2. Select **Deploy from GitHub repo**
3. Choose your `telegram-summarizer-bot` repository
4. Railway will start setting up your project

4.3 Add Environment Variables

This is where you'll add your Bot Token and OpenAI API Key!

1. Click on your deployed service
2. Go to the **Variables** tab
3. Click **+ New Variable** for each of these:

Variable 1:

- Key: `TELEGRAM_BOT_TOKEN`
- Value: [Paste your bot token from Step 1]

Variable 2:

- Key: `BOT_USERNAME`
- Value: [Your bot username WITHOUT the @ symbol]
- Example: If your bot is `@MySummarizerBot`, enter: `MySummarizerBot`

Variable 3:

- Key: `OPENAI_API_KEY`
- Value: [Paste your OpenAI API key from Step 2]

Variable 4 (Optional):

- Key: `OPENAI_MODEL`
- Value: `gpt-3.5-turbo`

Variable 5 (Optional):

- Key: `MESSAGE_LIMIT`
- Value: `75`

Variable 6 (Optional):

- Key: `MAX_MESSAGE_AGE_HOURS`
- Value: `24`

1. The bot will automatically restart with the new variables

4.4 Verify Deployment

1. Go to the **Deployments** tab

2. You should see a deployment with status “SUCCESS” and “ACTIVE”
3. Click on **View Logs** to see your bot starting up
4. Look for a message like: “Bot is starting...”

4.5 Monitor Usage (Stay Within Free Tier)

Railway free tier includes:

- \$5 of free credits per month
- Shared resources

To check your usage:

1. Go to your project dashboard
2. Click on **Usage** (bottom left)
3. Monitor your monthly usage

✅ **Railway Deployment Complete!** Your bot is now running 24/7! 🎉

Skip to [Step 5](#)

Option B: Deploy on Render

Render is another great free hosting option.

4.1 Create a Render Account

1. Go to <https://render.com> (<https://render.com>)
2. Click **Get Started**
3. Sign up with GitHub (click **GitHub** button)
4. Authorize Render to access your GitHub account

4.2 Create a New Web Service

1. Click **New +** (top right)
2. Select **Background Worker**
3. Click **Connect** next to your GitHub account
4. Find and click **Connect** on your `telegram-summarizer-bot` repository

4.3 Configure Your Service

Fill in these settings:

1. **Name:** `telegram-summarizer-bot` (or any name)
2. **Region:** Choose the closest region to you
3. **Branch:** `main`
4. **Runtime:** `Python 3`
5. **Build Command:** `pip install -r requirements.txt`
6. **Start Command:** `python bot.py`
7. **Instance Type:** Select **Free**

4.4 Add Environment Variables

Scroll down to the **Environment Variables** section:

1. Click **Add Environment Variable** for each of these:

Variable 1:

- Key: `TELEGRAM_BOT_TOKEN`
- Value: [Paste your bot token from Step 1]

Variable 2:

- Key: `BOT_USERNAME`
- Value: [Your bot username WITHOUT the @ symbol]

Variable 3:

- Key: `OPENAI_API_KEY`
- Value: [Paste your OpenAI API key from Step 2]

Variable 4:

- Key: `OPENAI_MODEL`
- Value: `gpt-3.5-turbo`

Variable 5:

- Key: `MESSAGE_LIMIT`
- Value: `75`

Variable 6:

- Key: `MAX_MESSAGE_AGE_HOURS`
- Value: `24`

1. Click **Create Background Worker** at the bottom

4.5 Verify Deployment

1. Wait for deployment to complete (usually 2-5 minutes)
2. You should see “Deploy succeeded” with a green checkmark
3. Click on **Logs** tab to see your bot running
4. Look for: “Bot is starting...”

4.6 Monitor Free Tier Usage

Render free tier includes:

- 750 hours per month (enough for 24/7 operation!)
- Shared resources

The service will automatically sleep after 15 minutes of inactivity, but will wake up when someone uses the bot.

✅ **Render Deployment Complete!** Your bot is now running! 🎉

Step 5: Add Your Bot to a Telegram Group

Now let's add your bot to a group so it can start summarizing messages!

5.1 Open Your Group Chat

1. Open Telegram
2. Go to the group where you want to add the bot
3. **Note:** You must be an admin of the group to add bots

5.2 Add the Bot

1. Click on the **group name** at the top
2. Click **Add Members** (or **Invite to Group**)
3. Search for your bot's username (e.g., @MySummarizerBot)
4. Select your bot
5. Click **Add** or **Invite**

5.3 Make the Bot an Admin (Important!)

For the bot to read messages, it needs to be an admin:

1. In the group settings, go to **Administrators**
2. Click **Add Admin**
3. Select your bot
4. **Uncheck** all permissions except:
 - ☒ Read Messages (this should be enabled by default)
5. Click **Done** or **Save**

5.4 Test the Bot

1. Send a regular message in the group: "Hello everyone!"
2. Send a few more messages to build up history
3. Now mention your bot: "@YourBotUsername summarize" or just "@YourBotUsername"
4. The bot should respond with a summary!

☒ **Step 5 Complete!** Your bot is now in your group!

Step 6: Use Your Bot

How to Get a Summary

There are **three ways** to use your bot:

Method 1: Mention the Bot

Type @YourBotUsername anywhere in a message:

@MySummarizerBot what did I miss?

Method 2: Use the /summary Command

Just type:






/summary

Method 3: Reply to a Message


Reply to any message in the group and mention the bot:

@MySummarizerBot summarize **from** here


What the Bot Does

1.  Reads the last 75 messages (or whatever you set in MESSAGE_LIMIT)
2.  Only includes messages from the last 24 hours (or whatever you set)
3.  Sends them to OpenAI for AI-powered summarization
4.  Returns a clean, bullet-point summary
5.  Tells you how many messages were summarized

Example Summary



 Summary:

- Meeting scheduled **for** Friday at 3 PM
- John will prepare the presentation slides
- Budget approval still pending from management
- Sarah shared the Q3 sales report link
- Team agreed to use the new project management **tool**
- Next review meeting **in** two weeks

 Summarized 45 messages from the last 24 hours.

Bot Commands

- `/start` - Get welcome message and instructions
- `/help` - Show help information
- `/summary` - Get a summary of recent messages

 **You're all done!** Your bot is fully operational! 

Troubleshooting

Problem: Bot doesn't respond when mentioned

Possible Solutions:

1. **Check if bot is online:**
 - Go to your Railway/Render dashboard
 - Check the logs for errors
 - Make sure the deployment status is "ACTIVE"
2. **Verify bot privacy settings:**
 - Go to @BotFather on Telegram
 - Send: `/setprivacy`
 - Select your bot
 - Make sure it's set to **DISABLED**
3. **Check if bot is an admin:**
 - Go to group settings → Administrators
 - Your bot should be listed there
4. **Verify environment variables:**
 - Check Railway/Render dashboard
 - Make sure all variables are set correctly
 - No extra spaces in the values

Problem: Bot says “No messages available to summarize”

Cause: The bot can only see messages sent AFTER it was added to the group.

Solution:

- Wait for more messages to be sent in the group
- Have a short conversation (10-20 messages)
- Try mentioning the bot again

Problem: “Error generating summary” message

Possible Causes:

1. OpenAI API Key Issue:

- Check if your API key is correct
- Verify you have credits/payment method on OpenAI
- Check OpenAI usage limits

2. Check OpenAI Account:

- Log in to platform.openai.com (<https://platform.openai.com>)
- Go to Billing → Usage
- Make sure you have available credits
- Check if your API key is active

3. API Rate Limits:

- If many people use the bot at once, OpenAI might rate-limit you
- Wait a few minutes and try again

Problem: Bot stopped working after a few days

Possible Causes:

1. Free tier limits reached (Railway):

- Check your Railway usage dashboard
- You may need to upgrade or wait for next month

2. Service went to sleep (Render):

- Free tier services sleep after inactivity
- Just mention the bot again - it will wake up

3. OpenAI credits depleted:

- Add more credits to your OpenAI account

Problem: “TELEGRAM_BOT_TOKEN not found” error in logs

Solution:

- Go to your deployment dashboard (Railway/Render)
- Check Environment Variables section
- Make sure `TELEGRAM_BOT_TOKEN` is set correctly
- Redeploy the service

How to View Logs

On Railway:

1. Go to your project dashboard
2. Click on your service

3. Click **Deployments**

4. Click **View Logs**

On Render:

1. Go to your dashboard

2. Click on your service

3. Click the **Logs** tab

Still Having Issues?

1. Check the logs first - they usually show what's wrong
2. Verify all environment variables are set correctly
3. Make sure your OpenAI account has available credits
4. Restart the service on Railway/Render
5. Check that your bot has admin privileges in the group

Frequently Asked Questions

How much does it cost to run this bot?

Hosting: Free (Railway/Render free tiers)

OpenAI API: Approximately \$0.002-0.005 per summary

- 100 summaries \approx \$0.20-0.50

- 1000 summaries \approx \$2-5

Can I use this bot in multiple groups?

Yes! Your bot can be added to as many groups as you want. Each group's messages are kept separate.

How many messages can the bot summarize?

By default, it summarizes the last 75 messages from the past 24 hours. You can change this by modifying the environment variables:

- `MESSAGE_LIMIT` : Number of messages (default: 75)
- `MAX_MESSAGE_AGE_HOURS` : Time range in hours (default: 24)

Is my chat data private?

- Your messages are sent to OpenAI's API for summarization
- OpenAI's data policy: <https://openai.com/policies/api-data-usage-policies> (<https://openai.com/policies/api-data-usage-policies>)
- The bot doesn't store messages permanently (only keeps last 100 in memory)
- For sensitive conversations, consider this before using

Can I change the bot's summarization style?

Yes! Edit the `bot.py` file and modify the prompt in the `generate_summary()` function. For example:

- Change "maximum 8 points" to "maximum 5 points" for shorter summaries
- Add "use formal language" or "use casual language"
- Specify different focus areas

How do I update my bot after making changes?

1. Make changes to your code locally

2. Upload updated files to GitHub:

- Go to your repository on GitHub
- Click on the file you want to update
- Click the pencil icon (Edit)
- Make your changes
- Click **Commit changes**

3. Railway/Render will automatically detect changes and redeploy

Can I use GPT-4 instead of GPT-3.5?

Yes! Just change the `OPENAI_MODEL` environment variable to `gpt-4`. Note:

- GPT-4 is more expensive (about 15-30x the cost)
- GPT-4 provides higher quality summaries
- GPT-3.5-turbo is usually sufficient for most use cases

How do I stop the bot?

Temporarily:

- Railway: Click on your service → Settings → Pause service
- Render: Click on your service → Settings → Suspend

Permanently:

- Delete the service from Railway/Render dashboard
- Delete the bot using @BotFather: `/deletebot`

Can other people use my bot?

Yes! Anyone can:

- Add your bot to their groups (if they have the bot username)
- Use the bot in groups where it's already added

The bot works for all group members - no special permissions needed to use it!

What if I lose my bot token?

Unfortunately, tokens can't be recovered. But you can generate a new one:

1. Go to @BotFather
2. Send: `/token`
3. Select your bot
4. You'll get a new token
5. Update the environment variable in Railway/Render

Note: The old token will stop working.

Need More Help?

- Check the logs in your Railway/Render dashboard
- Review the Troubleshooting section above
- Check OpenAI status: <https://status.openai.com> (<https://status.openai.com>)
- Check Telegram Bot API status: <https://telegram.org> (<https://telegram.org>)

Congratulations! 🎉

You've successfully set up your Telegram Message Summarizer Bot!

Your bot is now:

- ✅ Running 24/7 in the cloud
- ✅ Ready to summarize messages in any group
- ✅ Accessible to all group members
- ✅ Powered by AI for intelligent summaries

Enjoy using your bot! 🚀

Pro Tips:

- Set a monthly spending limit on OpenAI to control costs
 - Monitor your Railway/Render usage to stay within free tier
 - Keep your tokens and API keys secure - never share them!
 - Read your deployment logs regularly to catch issues early
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